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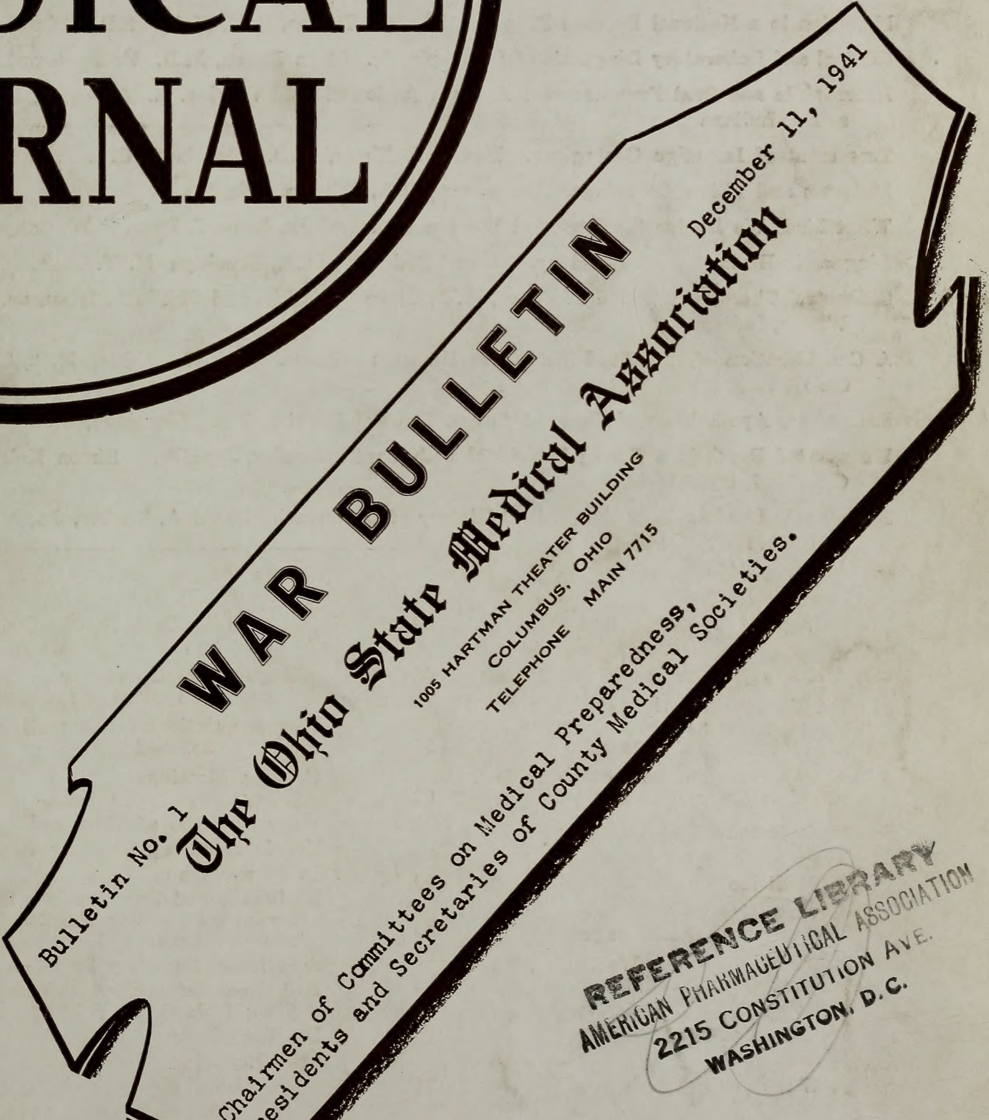

Bulletin No. 1

WAR BULLETIN

December 11, 1941

The Ohio State Medical Association

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The Ohio State Medical Journal

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Vol. 38 January, 1942 No. 1

JONATHAN FORMAN, M.D., *Editor*

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Urological Diagnosis in General Practice

VICTOR C. LAUGHLIN, B.S., M.D., F.A.C.S.

A PATIENT may choose his family physician for a variety of reasons and often under varying circumstances. Originally the two may have met on the golf links, at a social affair, in church, or in a club meeting. The patient may have come to the physician for some trivial illness or injury, later to find that the friendship grows and that a confidence is developed in the patient for his doctor. Whatever has been the modus operandi, the result is that the doctor has a new patient and the patient has a new family physician.

In the light of modern medical practice, each of these individuals has an obligation to the other, but of the two obligations that of the physician to the patient is the more important. Various systems of the body could be used to illustrate in a practical way the manner in which the attending physician should discharge his part of the obligation. Let us consider the "work up" for the patient with some abnormality of the genito-urinary tract.

The Authors

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DIFFERENTIAL DIAGNOSIS

As long as we continue to confuse lesions of the upper urinary tract with pathology in the stomach, gallbladder, spleen and appendix and those of the lower urinary tract with appendicitis, intestinal obstruction, diverticulitis, adhesions and pelvic inflammatory disease, just so long are we justified in occasionally bringing to the attention of the profession the importance of adequate and proper urological examination in all but the most obvious cases.

Acute right sided seminal vesiculitis is still occasionally mistaken for appendicitis, the diagnosis being missed because someone failed to take a careful history, perform a rectal examination or both. Of patients seen with chronic right sided abdominal pain on our service 60 to 80 per cent show abdominal scars, the result of operations upon the appendix, the gallbladder or the female organs of reproduction. The possibility of this type of pain having its origin in the urogenital system occurs late in the minds of many physicians. This may be due in part to the fact that many urological lesions mask as lesions in other systems of the body, have no predominately urological characteristics and are often not discovered until all other conditions are excluded—too often by surgical exclusion.

Possibly 70 per cent of chronic lesions of the upper urinary tract manifest their initial symptoms in other systems of the body, principally the gastro-intestinal tract. Mistakes in surgical diagnosis therefore, are quite likely and occur frequently. Prostatism with its frequency, tenesmus, dysuria and dribbling is still called cystitis or Bright's disease by many. A diagnosis of appendicitis and appendectomy often precede the discovery of right ureteral pathology, par-

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ticularly complete ureteral obstruction from stones or other causes. This is not so surprising when one considers that the urine analysis is often negative in these cases, the sample of urine coming from the well side only.

Perhaps 70 per cent of tumors of the kidney in adults bleed. There remains 30 per cent in which the alarming symptom of hematuria is absent and for this reason the attention of the examiner is not particularly directed to the urinary tract. The so-called embryoma or Wilms' tumor of the kidney in children bleeds in only 15 per cent of cases which leaves 85 per cent devoid of this "telltale" symptom. A goodly share of bladder tumors have no macroscopic blood in the urine until the condition is well advanced.

An orderly progressive scheme of examination will result in a correct diagnosis in 96 per cent of cases presenting themselves to the physician with urological symptoms. The entire gamut of examination as set forth here should be followed in all cases. To omit some part is to invite error in diagnosis. Elaborations and additions to the basic examination are allowable, often desirable, but usually unnecessary. Treatment, except the simplest form must be withheld until the correct diagnosis is established and shortcuts in the case work-up particularly of surgical cases are to be condemned. It is not allowable in the best interest of the patient and for the proper performance of scientific medical service to proceed from the history to the intravenous pyelogram and thence to the operating table. The reasons for this statement will be set forth later in this paper.

CASE HISTORY

The history is a very necessary and important part of the urological case "work up" and should be very carefully taken. A number of patients have absolutely no history of symptoms referable to the urinary tract although they may be suffering with serious, even advanced disease of that system of the body.

Let us consider some of the more important clinical conditions from the standpoint of the case history:

Cord Bladder—This condition, usually the result of syphilis, falls into the classification of the hypotonic type of neurogenic bladder. It is present more often than it is discovered. Ulcerative or gummatous lesions of syphilis are now rarely found. Less rare, however, are those conditions in which the effect of syphilis on the central nervous system is reflected in the urinary tract. The tabetic or cord bladder is an example. This condition presents symptoms in the case history closely simulating the symptoms of prostatic enlargement, viz.—long standing obstructive urination, frequency with dribbling, incontinence, etc. The serology and central nervous system findings, cystoscopy and cystometry usually suffice to clinch the diagnosis in these cases.

Tuberculosis—This disease in the genito-urinary tract is a great imitator of other less serious diseases. It forms a large part of urological work. The history of pulmonary symptoms in the patient, members of his family, or roommates are all points of vital importance. Too often the patient with genito-urinary tuberculosis is treated for cystitis and for other protracted conditions with the drug that happens to be in style at the time. He does not get well of course, and valuable time is lost. The history of the passage of blood clots suggests early tuberculosis of the kidney and attacks of renal colic may frequently be the initial symptom of this disease, thus confusing tuberculosis with calculous disease, tumors and more simple types of infections.

Calculi—In calculous disease of the urinary tract the history is of exceptional value. In many instances the tendency toward stone formation appears to be familial. It is a well known fact that a patient who has passed a stone is more apt to again develop this condition and it is not unusual to find that various members of his immediate family have had similar experiences. This is particularly true of calculi that develop only to a size capable of being passed through the ureter to be voided later on. It is not unusual, however, to find the large "staghorn" type of calculus common to various members of the same family.

A doctor recently related a case to me which illustrates very nicely what I am trying to bring out in this paper. His patient was admitted to the hospital with a provisional diagnosis of appendicitis. The flat plate at the time of the intravenous pyelogram revealed a stone in the right ureter which had since passed. The doctor was pleased with his discovery and being a very conservative surgeon was delighted that an unnecessary laparotomy had been avoided by making a correct diagnosis. The patient then left the hospital without further urological workup. The question naturally arises as to what additional workup was necessary—the stone had passed. The most valuable part of the service to this patient was missed, that is, the opportunity to discover the reasons for the formation of the stone in the first place. It is a well known fact that various forms of obstruction (ureteral strictures—stenosis of the ureteral orifice—tumors—obstructions at the bladder outlet, etc.) and resultant urinary stasis all predispose to stone formation. Patients often leave the hospital without the advantage of an examination for these conditions. Urinary calculi should not be looked upon as benign inevitable developments. The chemical analysis of the stone and the institution of proper dietary measures is also mandatory.

Hematuria—When evaluating the various symptoms in the case history it is well to keep in mind that hematuria is a symptom, not a diagnosis. It is probably the most important symptom in urology and nearly always means some pathological condition. The symptom of hematuria alone should not be treated.

Hematuria may be gross of microscopic, initial, terminal or total. It may result from trauma, thyroid disease, sepsis, scurvy, systemic disease and certain of the blood dyscrasias such as hemophilia, hemorrhagic disease of the new born, purpura, polycythemia, leukemia and various anemias. It may be the result of diseases of neighboring viscera or of the genito-urinary tract itself.

When considering the latter group, the etiological factors may be grouped as follows:

Renal

- Tumors
- Infections (tuberculous and pyogenic)
- Polycystic disease
- Calculi
- Acute or chronic nephritis

Ureteral

- Calculi
- Tumors
- Strictures

Vesical

- Tumors
- Prostatic enlargement
- Calculi
- Cystitis (so-called)

Urethral

- Genital infections
- Tumors
- Strictures
- Toxic causes

SPECIAL GROUPING OF HEMATURIAS

Hematuria may also be grouped as follows:

- Painless Hematuria
- Painful Hematuria
- Total Hematuria
- Hematurias affected by movement

When this is done additional light is thrown on the diagnostic problem. This is particularly true in those borderline cases where the symptomology overlaps. Logical deductions can be made by following the information set forth in this special grouping. The grouping follows:

Painless Hematuria—This symptom is frequently present in such lesions as: early malignant growth of the bladder, benign prostatic hypertrophy particularly when associated with varicosities and inflammation of the overlying mucosa, traumatism, polycystic kidneys, acute renal congestion, the so-called essential hematurias and aneurysm of the renal artery which is fortunately rare.

Painful Hematuria—This symptom is usually associated with cystic symptoms and is frequently present in such lesions as: Carcinoma of the bladder; vesical calculi (in which case the hematuria is frequently terminal); occasionally in cases of carcinoma of the prostate; renal tuberculosis; malignant growths of the renal pelvis and bilharzial infections.

Total Hematuria—(Those cases in which the bleeding is considerable and equal in all glasses as contrasted with initial and terminal hematuria, hematuria occurring on the onset or termination of the urinary act). It is often associated with reno-ureteral colic, the result of a variety of causes such as: ureteral or renal calculi, especially when the stones are irregular in outline and sharp; ureteral carcinoma or carcinoma of the renal pelvis—neither of which is a common finding; papillomas of the ureter or renal pelvis likewise uncommon; hypernephromata or malignancy of the kidney; renal tuberculosis; leukoplakia of the ureter or renal pelvis and finally profuse renal hemorrhage of whatever character sometimes associated with marked clot formation.

Hematurias Affected by Movement—These are few. The outstanding group is the calculous group especially vesical calculi. Occasionally growths in close approximation to the vesical sphincter so manifest themselves. While tuberculosis may be reported at times as aggravated by movement, this is not a characteristic feature of the diagnosis. The majority of lesions causing hematuria are quite independent of moderate activity.

In general we may safely say that over 50 per cent of hematurias are due to lesions primary in the urinary tract and 50 per cent of massive hematurias are due to tumors of the bladder. The majority of renal hematurias show blood only upon microscopic examination.

PYURIA

This symptom does not alarm the patient as does hematuria. It is, however, very important and its etiology is sometimes difficult to determine. Pyuria may be discovered by the patient and related to the doctor at the time of the history.

When considering the etiology of pyuria, one must keep in mind the presence of an old, unresolved gonorrheal infection, and the same is often true of non-specific urethritis. Gonorrheal infections of the kidney and bladder are not common. Foci of infection in the glandular byways off the main channel may be the responsible factor. Chronic urethral tuberculous infection may be confused with the pyuria of specific or non-specific urethritis. The inflamed appendix, the pyosalpinx, seminal vesiculitis and pyogenic disease of the kidney may also be foci causing pyuria.

One sees, therefore, that all pus in the urine is not of renal origin, neither is it all the result of simple, so-called cystitis. In the male, the urethra, prostate and seminal vesicles and in the female, inflammation of the bladder neck and trigone and subtrigonal glands may be the contributing factor. When pyuria, following ordinary measures of therapy persists, particularly when hematuria accompanies the pyuria or red cells are too numerous in the microscopic specimen, the more advanced diagnostic urological procedures are in order. It is folly to treat these patients with fancy mixtures and pills. The findings may suggest an incomplete obstruction to the urinary flow which is coaxing to be relieved. Such obstruction may occur in the urethra, at the bladder neck or in one or the other ureter or kidney. It may be a stone, a new growth, a stricture (urethral or ureteral) or be due to one of many anomalies. When one or two white cells are present in every other high power field, pus is not present. When seven to ten "polys" are seen, a diagnosis of pyuria is made. Clumped leucocytes are positive evidence of pus and usually means pyelitis.

CONGENITAL ABNORMALITIES

Finally, in the consideration of the case history the examiner should keep in mind the possibility of congenital abnormalities which, although having served an individual well during his early life, under the stress and strain of adult life the affected organs fail him. These are likely to be familial lesions, a fact which will often be brought out in the case history. They will be discussed later, however. Notable among such lesions is congenital bilateral polycystic kidneys. This abnormality having been found in a patient may also be found, after proper investigation, in several members of the patient's immediate family. All members of such families should be investigated. Unfortunately this condition is sometimes mistaken for unilateral renal or abdominal tumor and one side nephrectomized or unnecessary laparotomy performed.

RENAL COLIC

The diagnosis of renal colic covers a multitude of abdominal complaints. Although always interesting it is seldom conclusive. Patients referred to a urologist with a history of renal colic and a clinical diagnosis of calculous disease often do not have this condition, and many more not referred, undergo exploratory laparotomy only to find that the diagnosis of renal colic should have been made. The history of the symptom "renal colic" must be carefully worked out as to the frequency of attack, the amount of pain, tenderness and rigidity, actual position of the pain, whether or not referred to any particular point and whether accompanied by frequency, hematuria, nausea or vomiting. All of these qualifying points are important diagnostic considerations.

PHYSICAL EXAMINATION

Having shown due consideration to the case history and important symptoms in the differential diagnosis, the attention of the examiner should next be directed to the more important elements of the physical examination of particular interest in the urological case.

Syphilis—It is not sufficient to exclude the possibility of this disease by the history and laboratory tests alone. The physical signs of syphilis must be looked for in every patient and the proper neurological tests applied. Syphilis is the great imitator of diseases. Like tuberculosis, syphilis may resemble many urological lesions. Both diseases have a higher incidence in urological practice. Serological tests for syphilis must be done in every case.

General Appearance—Whether or not the patient is seen as an emergency, anemia and shock must be looked for. True, these symptoms may be present in a variety of other diseases yet each has its own particular significance. Always examine for extravasation of urine because this condition may be present without any complaint on the part of the patient. The shriveled dehydrated appearance of the case with high values on the chemical analysis of his blood, the shape of the lower abdomen of the old prostatic and the characteristic position assumed by the perirenal abscess patient are all well known yet of sufficient importance to again be emphasized.

Abdominal Tumor—Using the word tumor in its simplest meaning—"swelling"—there are a number of conditions of interest when palpating and inspecting the abdomen of a urological patient. If we consider the ptotic kidney abnormal and certainly such kidneys are abnormal, in position, if nothing else we can safely say that except for the lower pole of the right kidney, which is sometimes felt, normal kidneys are scarcely ever palpable. The pathological kidney of any type is quite often discovered by bimanual examination, particularly when the examination is conducted in the upright position. Many unilateral abdominal tumors turn out to be ptosed kidneys. Three degrees of nephroptosis are usually described:

1st degree—when the lower pole is palpable.
2nd degree—when the entire kidney is palpable.
3rd degree—when the entire kidney is palpable and movable in all directions.

The ectopic kidney differs from the ordinary case of nephroptosis or so-called "floating kidney", in that it usually lies lower in the abdomen and is more or less fixed because of its congenitally abnormal blood supply. The ectopic kidney is readily recognized by pyelography.

The bilateral abdominal tumors are very likely to be large kidneys. They may result from central obstructive lesions at the bladder neck or below but usually they are congenital lesions—quite often polycystic kidneys. Such kidneys attain considerable size, are irregular, quite often painless and of slight mobility. Here again, the diagnosis is suggested by palpation but confirmed by pyelography. The congenital horseshoe kidney, another reason for abdominal tumor, is less readily recognized by abdominal palpation, however, it is readily picked up by the pyelogram. The bilateral enlargement of the kidneys, the result of central obstruction (prostatic enlargement, tumors, etc.) is not rare. Bilateral enlargement of these organs as a result of infection is quite rare and seldom seen except when associated with central obstruction.

Central abdominal tumors, especially in old men, usually turn out to be enormously distended bladders. Here the aseptic catheter is the instrument of diagnosis. Gradual decomposition over 24 hours is still thought to be the treatment of choice. A sudden decompression, we think, has its dangers, notwithstanding recent opinions in the literature to the contrary. The dirty catheter still has no place in the treatment of the urological patient.

The chronically disturbed bladder of prostatic hypertrophy, the cord bladder of syphilis and the hypotonic type of neurogenic bladder—all with their tremendous residual urines must be kept in mind when considering the etiology of abdominal tumors in the urological patient. It is important to check the residual urine in females. These individuals are as subject to bladder neck changes as are men. The acutely distended bladder in the female may mean a bladder neck obstruction or it may have a neurogenic basis. Such bladders may be associated with pregnancy or a postoperative period and are not infrequently seen even in young women. Be aware of the reflex inhibition to the act of urination—the result of tuberculous inflammation of the peritoneum.

The abdominal and loin tumors in the newborn may all recede when the pin point meatus is corrected. Obstructive hydronephrosis, hydroureter, distended bladder and dilated urethra may occur simultaneously in the same baby the result of this simple abnormality. Death may follow soon after birth unless the obstruction at the meatus is relieved and the back pressure upon the upper urinary tract eliminated.

RECTAL EXAMINATION

The rectal examination embraces the following urological considerations and is an important diagnostic procedure:

1. Character of sphincter (neurological significance).
2. Membranous urethra.
3. Cowper's glands.
4. Prostate and Vesicles: size, contour, consistency, tenderness and inter-vesicular plateau of induration.
5. The prostatic secretion.

The physical examination of any patient is not complete without a rectal examination. To perform a fine physical examination, particularly in a man past 50 years of age and omit this procedure is absurd.

THE PROSTATE

A large number of cases with pathological changes in the prostate gland presenting themselves for surgical relief already show malignant changes in the posterior lobe of the gland at the time of the first rectal examination. A conservative estimate would be 10 per cent. Although many observers place this figure much higher. This is very important for the reason that it allows a proper selection of the type of prostatectomy to be performed, i.e., suprapubic, transurethral, perineal or radical perineal.

Of the prostatic carcinomas which come to transurethral resection or which are discovered by the opportunities provided for biopsies through this type of operation two out of every five already have carcinomatous changes in the posterior lobe. Such changes can be felt by rectum and if they were not could have been discovered by the experienced examining finger at the time the physical examination was done. Many patients still believe that urinary symptoms in the male are natural physiological old age changes to be expected in men over 50 and that such individuals are unsexed following the surgical removal of the prostate gland. Prostatic carcinoma does not limit itself to the so-called cancer age but can and does occur in younger men and not rarely in those in their forties.

One must keep in mind that failure to discover urethro-vesical enlargements of the prostate per rectum does not insure their absence. Obstruction on the urethro-vesical side may occur. These may take the form of vesicle neck fibrosis, bar formation, middle lobe hypertrophies, tumors, etc.

Returning for a moment to the patient-physician obligation, it is the duty of the general practitioner who first sees these patients to recognize the very early changes characteristic of prostatic carcinoma and consign these cases to proper treatment. It is in this very early period that proper surgery gives the greatest promise of cure. The symptom of hematuria is in the same catagory, for to treat this symptom alone is to lose valuable time and allow a benign neoplasm to become malignant and a malignant neoplasm to become inoperable.

Pain is a prominent symptom of carcinoma of the prostate. It occurs possibly in 65 per cent of cases. It is the initial symptom in 10 per cent. Acute retention occurs in approximately 43 per cent and is the initial symptom in only 5 per cent. It is important to note that in 8 per cent of cases of prostatic carcinoma the first symptoms experienced by the patient were those produced by metastatic areas of the growth in other regions of the body. The dense capsule of the gland does not prevent metastases for long.

Such metastases occur along the lymphatics of the nerves in most instances, frequently passing to the bones of the spine and pelvis and the long bones of the extremities. The preliminary roentgenogram in these cases may reveal evidence of the replacement type of bone metastasis. So-called sciatica, neuralgia, rheumatism and backache in men past 40 should arouse suspicion in the mind of the careful diagnostician.

PRELIMINARY ROENTGENOGRAM

By preliminary roentgenogram is not meant intravenous pyelography although it is a routine part of such procedures. Sometimes spoken of as a "flat plate" or "K.U.B. plate", this X-ray includes a full length exposure of the uninjected urinary tract, the kidneys, ureters and bladder and constitutes a very important part of the urographic examination. When the patient is properly prepared for it the preliminary roentgenogram affords valuable information. It delineates the size, position and outline of the kidney. It will often show the relative size of the two kidneys which is of particular value in renal tumor and obstructive enlargements of that organ. The position of the kidneys on these plates may assist the examiner to arrive at a diagnosis of nephroptosis or congenital ectopia by a later comparison with the injected plates taken in the upright position at the time of the cystoscopy. Delineation of the outline of the kidney is of immense value in considering polycystic kidney, solitary cysts, tumor and horseshoe kidney. The intensity of the kidney shadow in these X-rays, i.e., its illumination varies with the density of the tissue, which makes up the organ, which virtually means the intensity of the kidney shadow varies with the type of pathology. Well known conditions which alter the illumination of the organ are: very large kidneys; very small kidneys; fibrotic changes and thickening; deposits of purulent material and deposits of inorganic salts as calculi.

INTRAVENOUS PYELOGRAPHY

This procedure should not be employed at random. It is contraindicated for patients suffering from advanced renal destruction, with severe uremia, severe liver disorders, exudative diatheses, in children, and should be used with caution in cases of hyperthyroidism, tuberculosis and hypertension. In the very young, the very old or infirm, or the patient for which instrumental procedures are definitely contraindicated for one reason or another. To exclude the urinary tract as an etiological factor in a diagnostic survey, on the basis of a negative intravenous pyelogram is hardly justifiable in the light of present knowledge. By so doing, the diagnostician deprives the patient of the more comprehensive instrumental procedure, cystoscopy, with its incidental discoveries.

RETROGRADE PYELOGRAMS

While not a part of the diagnostic armamentarium of the general practitioner we include this subject at this point for the sake of completion. At this period in the practice of medicine when so many are turning to the intravenous method of examning the urinary tract often developing false impressions as to the presence or absence of urinary pathology it appears timely to reiterate the many advantages to accrue from the retrograde method of pyelographic examination. In addition to the accuracy of the X-rays obtained the opportunity provided by cystoscopy to inspect the urethra for congenital abnormalities, strictures and diverticuli; the posterior urethra and vesical sphincter areas for encroachment and intrusion of the pathological prostate, impacted stone, tumors, strictures, etc.; the interior of the bladder for evidences of tuberculosis, tumors, calculi, or back pressure changes; the opportunity to sound or catheterize the ureters for obstructions of various types; the opportunity provided to collect specimens from each kidney separately and finally the information provided by the pyelogram itself leads one to choose this type of examination wherever and whenever the condition of the patient permits.

RESIDUAL URINE

The estimation of residual urine is a very valuable clinical procedure in the scheme of the examination of the urological patient. It is a natural and convenient procedure coming as it usually does, toward the end of the examination. The patient is instructed to empty his bladder completely. The specimens are passed usually in two or more glasses and are kept for routine examination. Without delay an aseptic catheter or catheter bougie is passed into the bladder. How well the patient has been able to empty his bladder is determined by the amount of urine obtained. In the absence of neurological lesions, the amount of residual urine is in direct proportion to the degree of obstructive changes which exist in the posterior urethra and at the bladder neck. Valuable information is also obtained while passing the instrument as to the normalcy of the urethra.

TESTS OF RENAL FUNCTION

In estimating the patient's physical condition or his operability, there are probably no tests more valuable than those of renal function. It is impossible, in a paper of this kind to discuss these tests completely. Much of their value depends upon the power of interpretation developed by the particular examiner through repeated employment.

Tests of renal function are divided as follows:

1. Tests of excretion.
2. Tests of retention.
3. Combination Tests of excretion and retention.

Test of excretion gives an estimation of the speed and ability of the kidney to remove substances from the blood and pass them into the urine. The phenosulphonephthalein test of Rowntree and Geraghty and the indigo-carmine test of Voelcker and Joseph are examples of this type of test. The simplicity and accuracy of these tests make them quite reliable. The quantity of fluid output, the various tests involving specific gravity (Mosenthal), and the excretion of nitrogenous bodies may also be grouped under this heading.

Tests of retention are best exemplified by the usual blood chemistry estimations (nitrogenous waste products). These tests are of special value and should be performed whenever possible. For mild, early lesions of the kidney the tests of retention are of little value for the reason that it takes time to accumulate these waste products in the blood stream. The extent of renal pathology is usually proportionate to the degree of retention. Particularly is this true of bilateral lesions. Creatinine is the least variable factor and therefore its quantitative estimation is of utmost importance from the standpoint of prognosis. Retention beyond three milligrams per one hundred cc. of blood is regarded as grave, and readings beyond five milligrams, the case may almost invariably be considered hopeless. In obstructive lesion, creatinine readings may reach 12 or even 14 and the patient recover after the removal of the obstruction.

It is well to remember that obstructive lesions may superimpose themselves in cases where medical nephritis already exists.

Tests of Excretion and Tests of Retention—The combined use of tests of excretion and tests of retention is the ideal way to consider renal function and renal reserve in a particular case. Early in the illness it is better to depend on tests of excretion, whereas later the tests of retention are more helpful. From a clinical standpoint the value of these tests increases the closer one comes to a consideration of major surgical procedures. The ability of a remaining kidney to carry on the work necessary to sustain life must be carefully considered before operation is undertaken.

GENERAL CONSIDERATIONS

Having brought to the attention of the general practitioner the more important considerations in the handling of the urological patient, perhaps we may be permitted a word regarding the indications for more advanced urological procedures. Cystoscopy and retrograde pyelograms have already been referred to. Both are a very important part of the examination in most instances. Too often the physician is embarrassed by not having cystoscoped the patient, when he finds later that some relatively simple disorder could have been readily discovered and corrected through this comparatively simple procedure. Hematuria in any form or degree is the outstanding indication for cystoscopy. **The time to determine the source of the bleeeding is at the time of the bleeding not after it is stopped.** Sudden painless hematuria demands cystoscopy. This is particularly true if the percentage of incurable bladder tumors is to be reduced. Too often these cases are considered hemorrhagic nephritis or even advanced pyelitis, pyelocystitis or cystitis, medication is given and because of it or independent of it the bleeding stops. Some months later, after valuable time is lost, hematuria recurs. Cystoscopy then reveals the presence of an advanced bladder tumor or other equally major pathological problem. Frequently a jet of blood stained urine from either ureter, seen at the time of the cystoscopy, facilitates the diagnosis materially. If this procedure reveals no reason in the bladder for hematuria, the examiner is in a position to investigate the upper urinary tract as a source of the bleeding. Finally, from within the bladder the examiner is able to complete the necessary pyelograms for proper diagnosis.

SUMMARY

1. A systematic diagnostic approach to the urological case has been set forth in this paper. If properly followed in all cases a higher incidence of accurate diagnosis will be the reward.

2. The importance of the carefully taken case history in this type of case has been stressed and the more important diagnostic considerations summarized.

3. The symptom similarity of lesions of the genito-urinary tract and lesions of other systems of the body, particularly the gastro-intestinal system has been emphasized.

4. Syphilis, tuberculosis, hematuria, pyuria, renal colic and the rectal examination have received particular attention.

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Sinusitis and Nasal Allergy

Children with acute sinusitis, nasal allergy and allergic involvement of the sinuses are not favorably influenced by tonsillectomy. These conditions develop with equal frequency in children whose tonsils and adenoids have been removed in early childhood and in untreated children. The surgical removal of the tonsils and adenoids rarely benefits this condition. Observations made by Bullen and recently by Hansel and Chang indicate that the role of the tonsils and adenoids is not an important one in the causation and treatment of these manifestations. —Albert D. Kaiser, M.D., Rochester, N.Y.; Minn. Med., Vol. 24, No. 11, November, 1941.

Nutrition in a National Defense Program

MARTHA KOEHNE, B.A., M.A., Ph.D.

WITH the threat of involvement in the present world war constantly before us, we all want to make the greatest possible contribution to our nation's defense program. There is general acceptance and understanding of the role of our army, navy and air force, and of agriculture, labor and industry. Many, however, do not see where a nation-wide nutrition education program fits into the mosaic of a modern nation's All-out Defense Program. Because of your responsibilities in health education work in this state, it is very important that you fully understand the philosophy back of this movement so that you can give it your fullest cooperation.

I was privileged in being able to attend the National Nutrition Conference held during the latter part of May in Washington and am a member of the Ohio Nutrition Defense Committee, besides having served as nutritionist for the Ohio Department of Health for the past five years. I feel, therefore, that I can present to you the national viewpoint, together with a statement of Ohio's nutrition problems and some general suggestions on how to recognize dietary deficiencies in people. This will be followed by an outline on what has been done so far in Ohio to meet this national challenge and of plans for future development of our own nutrition program.

At the National Nutrition Conference, the goal of the nation-wide nutrition program was outlined as being three-fold:

Complete wiping out of deaths caused by dietary deficiency.

Great reduction in incidence of those several dozen diseases, such as tuberculosis, toward which insufficient food predisposes.

Make sure that every one in the United States has in his diet enough energy; enough bone, blood and muscle-building food; enough vitamins to give that feeling of "health plus". We want to make sure that our millions are so fed that their teeth are good, their digestive systems healthy, their resistance to premature old age enhanced through strong bodies and alert minds.

To say that our nation is better fed than any other country is poor consolation when one-third of our people are living on very inadequate diets and another third on diets of questionable value. Yet, in proportion to the productive capacity of our soil and of labor, we could be the most vigorous and healthy of all nations. For a number of years now we have, as a nation, been very conscious of appalling amounts of soil erosion and of waste of natural resources. We are only now, as a nation, becoming equally conscious of human erosion and are planning to do something about conservation of men, women and children, as well as of our soil and natural resources.

The Author

● **Miss Koehne, (Ph.D. Yale University) nutritionist, Ohio Department of Health, read the accompanying article at the annual meeting of Ohio Health Commissioners, held in Columbus, Ohio, September 26, 1941.**

What have we learned from the first million men that were examined under the present selective service law? Approximately 400,000 were rejected as physically unfit for service, 40 per cent compared with 31 per cent in the first World War. Among those who were 21 to 25 years old, 25 per cent were rejected, while in the group from 31 to 36 years old, 52 per cent were rejected, an alarming situation in a group of men presumably in the prime of life. About 150,000 of these rejections were due, directly or indirectly, to nutritional deficiencies, according to General Hersey. Dental defects ranked first as cause of rejection, while in the first World War they ranked sixth or seventh. This time about 80,000 of those rejected did not come up to the minimum standard of having at least 12 usable teeth.

Twenty years have been added to life expectancy in the past 50 years. This has been accomplished largely through measures which are familiar to all of you, and which have saved the lives of babies and young children. Little or no progress has, as yet, been made in saving the lives and protecting the health of those past 40 years of age. There are more people alive now to acquire the so-called degenerative diseases. Deaths from cancer, heart disease, kidney disorders and mental diseases, and from other degenerative disorders, have been on the increase. If we could get people generally to apply in their every day lives the knowledge already gained in the field of nutrition, we could probably add 10 more years to the average span of life and greatly reduce the incidence of these degenerative diseases in much less than 50 years. Nutrition in a democracy is, however, not a mere matter of scientific knowledge, but involves psychological and social problems that do not bother dictators.

The challenge democracies have to face today, is beating Hitler at his own game. Because Hitler has had absolute power over the lives and activities of Germans he has been able to enforce eating habits that are based on modern nutritional science and with astounding results. Whatever we may think of what his army has done, we must admit that it is the finest army the world has probably ever seen. Yet the young men in his army today were half-starved war babies for the first half of their lives. Nazi rations have been based on the simple peasant diet of whole meal, vegetables, cheese, skim milk and dried fruit. The mainstay of the German soldier is undermilled flour and the soybean, foods we feed to hogs, cattle and industry! Soybeans are substituted for meat and egg, in a whole array of recipes for soups, breads, fats, macaroni, pastry, etc., and in the famous Bratling concentrate of soybean, meat, vegetables and other foods which keeps like canned meat but doesn't need to be canned.

The Nazis, however, use food as a double-edged sword, to boost the morale of their own people and to paralyze the morale of peoples of conquered nations and of the Jews. All their protective foods are taken from them and sent to Germany. Hitler has even recently stated that he feels in no way whatever responsible for supplying food to these people.

Can we, in our chosen Democratic way, through a nation-wide educational program, accomplish what Hitler has done in the totalitarian way in improving the health of his Aryan population?

EDUCATIONAL PROGRAM

To do this we must, first of all, develop such high standards of what good health may and should be that we are no longer satisfied with an inferior state of health. Too often "well fed" means either spending plenty of money for food or is synonymous with "plumpness". Human health standards should be as high as successful farmers have long been using for their livestock. Sir John Orr of the British Food Ministry once said: "The trouble with you parents is that you raise children not for profit but for love, and so you don't care about them. Suppose you raised them like little hogs; you would build a marvelous human race."

It has been said that, like an iceberg, nine-tenths of malnutrition and the most dangerous part, is under the surface. Poor nutrition results from two main causes, the familiar hunger due to not enough to eat, sometimes called "hollow hunger," and the less familiar but very prevalent "hidden hunger" caused by eating the wrong kind of food. Only the poor are suffering from hollow hunger but malnutrition knows no class distinction. It is found in homes of our wealthiest families as well as in the poorest. Approximately two-thirds of the energy of the average American diet is obtained from highly refined foods, such as white flour, refined sugar and refined fats, all very deficient in protein, minerals, and vitamins. According to our Secretary of Agriculture: "Better nutrition does not mean soft living. It does not mean growing fat and lazy. It does not mean concentrating our attention on the flesh pots, the luxuries of life. On the contrary it means becoming harder, more efficient, better able to work over-time when it is necessary, better able to do without luxuries when we have to. By applying our brains, our knowledge, our common sense to the use of our vast resources, we can be a well-nourished and efficient people in spite of any sacrifice we may have to make". The present World War, when it does end, will probably be followed by a depression such as the world has never known. The more we can do now to educate people to appreciate the importance of adequate nutrition in the production and maintenance of good health; educate farmers to raising diversified crops; and develop sound methods for equitable distribution of food, the better able will we be to weather the storm and still be strong, healthy people.

OHIO'S NUTRITION PROBLEMS

I am now going to outline for you Ohio's nutrition problems as I see them.

1. The great mass of persons receiving surplus commodities for home use and many schools receiving them for use in feeding needy children have not understood how to use them, with the result that many of the valuable whole grain cereal products that were distributed have been fed to live stock or have gone to waste.

2. Children should have from 1½ pints to one quart of milk per day, most adults need from ¾ pints to 1½ pints daily, while pregnant and nursing mothers should have one to two quarts daily. These amounts include milk used as beverage, in cookery and as cheese, one ounce of ordinary yellow cheese being roughly the equivalent of eight ounces of milk. Just because a child lives on a farm is no assurance that he gets his allotment of milk. How much milk do you use in your own homes? How much do your own children and the adults in your family get? I have been told that many farm families that have not previously done so, are now selling all their milk to processing plants because of the good price offered them.

3. Are whole grain breads and cereals used freely in your homes? If you buy white bread, is it enriched? Whole grain breads and whole grain cereals are much cheaper sources of B-complex vitamins than are vitamin pills. Approximately half the bread and cereal food eaten should be of whole grain forms, the rest may be enriched forms. Enrichment, so far only in thiamin, nicotinic acid and iron, has been resorted to because of limits of public acceptance. It has been said that dark-bread eaters are rarer even than cold-bath takers! It is quite important that the public understand that enrichment is not a "magic wand that changes the character of bread so that it substitutes for other necessary foods or for whole grain breads". "Not even modern fortification of bread will make men live by bread alone", according to the chairman of the National Nutrition Conference.

4. Vegetables and fruits are not eaten nearly as freely as they should be. We do not have to worry about potatoes, they are bland enough in flavor to be generally acceptable. Are citrus fruits or tomatoes, fresh or canned, served in

your homes at least four times a week? Do you serve and eat green or yellow fruits or vegetables nine or ten times a week and other fruits and vegetables equally often? Do you eat a generous helping of some raw fruit or vegetable each day? All such foods are extremely valuable sources of vitamins and minerals.

5. How many of the people in your community are living on bread, beans, potatoes and fat pork? One of the many serious deficiencies in such a diet is good quality protein, without which strength cannot be maintained and children cannot grow successfully.

6. Do the schools in your district all sell candy? This has, unfortunately, seemed to be the easiest way for a school to raise money to support certain activities or buy needed equipment. If you have young children in your home or as close friends or relatives, do you provide candy for them frequently? I do not have time to discuss the candy problem in detail, but shall merely state, after five years research work in the cause of dental caries, that the candy habit and the use of other highly concentrated sweet foods is the largest single factor in making dental caries the commonest disease of children and in making serious dental defects the top-ranking cause for rejection of young men in the present draft program. For the great majority of persons, the unsweetened tooth will not decay.

7. Many children go to school without breakfast and many adults go from evening till noon without food. Do the schools in your district serve well-balanced lunches or do the children have free choice of food at a cafeteria counter? In the latter case, have you watched the unwise selections they make? Have you watched adults select food in a cafeteria? Many women live mostly on the types of food served at bridge parties and afternoon teas. Many adolescent girls are undermining their health by unwise methods of eating which they adopt in efforts to remain slender. We want to encourage healthful slenderness but we need to know how to eat and keep slender and not practice starving ourselves to do this.

8. Do you and other adults in your family set the children who eat at your table a good example in food habits? How can you expect a young child to eat something which some adult, of whom the child is fond, repeatedly refuses or makes disparaging remarks about. Food dislikes are not inherited but are acquired largely by imitation.

9. There is a relationship between the amount of money spent for food and the probable adequacy of the diet, but the mere spending of generous amounts of money for food will not insure good nutrition. A great deal of money spent for food in homes of all types is being spent unwisely. Poor nutrition is being bought instead of good, often at cost even higher than needed for the right kind of food. Many children living on prosperous farms are very poorly nourished because there is not the same attention paid to training them to eat necessary foods as is paid to the proper feeding of the farm animals.

10. Much educational work is needed in teaching housewives and managers of restaurants and school lunch rooms, proper methods of cookery to preserve the vitamin and mineral value of foods to the greatest possible extent. Fortunately such methods also improve their palatability for they preserve the natural color of vegetables, greatly improve the attractiveness of their appearance, and keep them reasonably crisp, instead of soft and mushy.

11. Much work needs to be done to counteract the erroneous ideas many persons have in regard to food, such as the danger of certain combinations of food; "what was good enough for my parents and for me is good enough for my children"; or instinct is the safest guide. Instinct hasn't a ghost of a chance, in this modern age, to guide any one, young or old, in food choice. Many are still inclined to attribute the superior vitality which some persons enjoy too largely to their luck in being born with a good constitution.

12. There are some rather appalling sanitary conditions still to be found in school lunch rooms and public eating places throughout the state.

I would next like to point out to you some of the outward manifestations of poor nutrition that may be escaping your attention.

Dietary deficiency conditions are usually brought about by regularly eating diets lacking in a number of essential food constituents. Sometimes, however, they result from a variety of other causes, such as:

> Greatly increased need, as in pregnancy, hyperthyroidism, fevers, or violent exercise.
>
> Poor assimilation of food, as in digestive disorders or the regular use of cathartics.
>
> Disturbed utilization of food, as in liver disorders or other metabolic diseases.
>
> Limitations in food intake because of allergy.
>
> Disturbed distribution of digestion products as in arteriosclerosis.

In the great majority of cases, regardless of the underlying cause, it is rare to find a patient with an uncomplicated deficiency of one food constituent, such as vitamin A. The common thing is to have a partial deficiency of a number of food essentials, such as calcium, protein, iron, vitamins A, B_1 (thiamin), B_2 (riboflavin), C (ascorbic acid), or the pellagra-preventing nicotinic acid. Most persons do not consult a physician until they are really ill. By that time more familiar symptoms of secondary complications predominate. Consequently physicians have been wary about making dietary deficiency diagnoses. They have been hesitant to accept findings of animal feeding experiments as having human significance.

However a great change has come about in the past five years. We now know what most of the vitamins are. Most of them can be manufactured and can be measured in terms of milligrams instead of International Units or a series of plus signs. The concentration of several vitamins in common foods has been accurately determined and their concentration can be measured in blood, spinal fluid and urine. Thus vitamins join the ranks of proteins, carbohydrates, fats and minerals in the thinking of physicians. Dramatic evidence is being published in all the medical journals of stubborn old human ills that respond even miraculously to some one or more of these previously elusive vitamins. I will review some of this evidence hurriedly.

Although we rarely find cases of blindness in this country that have been caused by deficiency of vitamin A, there are many cases of night blindness. This inability on the part of the eye to adjust quickly to darkness vision, after exposure to bright light, is caused by not enough visual purple in the retina of the eye. Visual purple is a compound of protein and vitamin A which bleaches out in bright light. The speed with which visual purple regenerates in darkness, as measured by a suitably constructed instrument known as the Biophotometer, is being used as a rough measure of vitamin A stores in the body. Also in vitamin A deficiency the skin becomes dry and scaly and pigmented papules form at the site of the hair follicles. Vitamin A has no direct specific ability to protect against infections, but it plays a very important role in keeping the tissue that lines the nose, throat and lungs in healthy condition, thus enabling these organs to throw off infections more promptly.

VITAMIN NEEDS OF HUMAN BEINGS

We hear much today about vitamin B_1 or thiamin. What evidences are there of its need by human beings? In September, at the Vitamin Symposium held in Chicago, Dr. Smith of Mayo Clinic reported producing thiamin deficiency in 19 patients who volunteered to go on a thiamin deficient diet, which contained all other known food essentials. They were on this diet from 88 to 193 days, during which time urinary excretion of thiamin fell to almost zero. Psychic effects were the first symptoms noticed; they began to complain of ill health, restlessness, depression, extreme fatigue on exertion, and became definitely neurasthenic. Gradually cardiac distress developed, along with nausea, vomiting and anemia. The basal metabolic rate dropped to minus 20 to 30 per cent. Thiamin was administered without the patients knowing it was being given. Without fail these symptoms began to disappear. Dr. Jolliffe of Bellevue Hospital, New York, reported that, in addition to the above symptoms, enlarged hearts are commonly found and that one of the first symptoms is pain in the calves of the legs, and burning tingling sensations in the feet and toes. Thiamin deficiency is frequently found in chronic alcoholics, their delirium often responding to thiamin administration.

What about vitamin C, or ascorbic acid? We do not often see acute cases of scurvy, but we may see cases of swollen gums that bleed profusely on slight pressure. The painful joints seen in acute scurvy may show up as so-called growing pains in children. We do have evidence that increased intake of ascorbic acid causes increase in the complement titer of the blood, showing a direct relation to immunity reactions. There is ample evidence of the benefit of heavy dosage with orange juice or similar rich sources of vitamin C in many common infectious diseases. Inasmuch as one of the chief roles of ascorbic acid is the ability it confers on certain cells to manufacture an intercellular cement-like substance, its use in abundance in surgery, to facilitate wound healing and bone healing, is now well recognized.

THE NEWER VITAMINS

Riboflavin is one of the newer vitamins which has only recently been recognized as having human significance. How does lack of this vitamin show up? Have you ever seen persons with deep, whitish cracks in the corners of their mouths? Sometimes these are also found at the junction of the nose and cheek and in the outer passage of the ear. Have you seen persons the whites of whose eyes were infiltered with blood vessels converging on to the cornea? Such eyes are very sensitive to light and vision is cloudy. Look in their mouths. Their tongues will be a deep magneta red, as will also the tissue lining their lips and cheeks. They are not eating enough milk, eggs, liver and greens. Ordinary medicine will not cure them, only riboflavin and a suitable diet.

What are the evidences of nicotinic acid deficiency? If you ever have an opportunity to go to Hillman Hospital in Birmingham, Alabama, in May, June or July, you will find many persons with all these dietary diseases, but especially will you see many cases of pellagra under the care of Dr. Tom Spies of the University of Cincinnati. This disease is also found among chronic alcoholics and among neurasthenic persons who are afraid to eat this, that or the other essential food. How does it manifest itself? Persons who, very soon after having parts of their bodies exposed to direct sunshine, develop peculiar lesions on these exposed surfaces of the skin and who just as suddenly begin to complain of very sore mouths and of digestive disturbances, very likely have pellagra. Frequent recurrences of pellagra may be associated, sooner or later, with definite mental symptoms. Nicotinic acid must not be confused with nicotine. Smoking will not cure or prevent pellagra. Pellagrins usually have a combination of dietary deficiencies and need thiamin, riboflavin, vitamin B_6 as well as nicotinic acid and a well-balanced diet if they are to recover completely.

Vitamin B_6 or pyridoxine has been known to cure patients spectacularly who were unable to walk because of extreme muscle weakness. Vitamin E, on the other hand, in addition to its possible role in certain cases of infertility, has been known to be of great value in cases of muscular dystrophy.

Look at the millions of our people who are constantly taking cathartics! How many persons, young and old, have dry scaly skins and thin dry lifeless hair! How much of the restlessness of modern youth and of labor groups and how many of the cross, crabbed dispositions we see and have to live or associate with could be prevented or corrected by improved nutrition?

I hope that I have convinced you that a nutrition education program has a legitimate place in the field of preventive medicine. What is being done to promote a nation-wide nutrition program?

THE STATE NUTRITION DEFENSE COMMITTEE

We have had in Ohio, since last November, as have most of the states, a State Nutrition Defense Committee. This committee is composed of about 30 representatives of various divisions of Ohio State University; of State Departments of Health, Education, Welfare and Agriculture; of federal agencies such as W.P.A., N.Y.A., and Farm Security Administration; and of various state professional associations, such as medicine, dentistry, dietetics, home economics, nursing, health and physical education, etc.

This state Nutrition Defense Committee sponsored, last Spring, six institutes in nutrition in different parts of the state for professional persons in all the counties of the state whose work brought them in contact with nutrition problems. In June, the Committee held a three-day conference at Ohio State University for those with professional training in foods and nutrition. The committee is also trying to get organized, in each of the counties of the state a County Nutrition Council made up of similar representatives on the county level, plus representatives of various lay organizations and of local industries. Many of these are now organized and we hope you will take an active interest in their organization and operation. Each such group has probably now received suggestions from the State Committee on things to be done right away. It is to be hoped that each will have a capable planning committee and a school lunch room committee. The organization of the educational program for the general public in each county will be conducted under the auspices of the County Council with the help of the State Committee and of other agencies, such as the Nutrition Service of the State Health Department, Agricultural Extension Service, Farm Security Administration, etc.

It has been said that there are three things necessary for a bath, soap, water and a desire for a bath. So too, in the nutrition field, we need either the income to buy suitable food or the land on which to produce it; knowledge of how to prepare and serve such food; and last but not least, an intelligent desire for a nutritionally adequate diet.

The Nutrition Service of the Ohio Department of Health hopes to do its bit, this Winter, to instill in people this desire for the right kind of food and the knowledge of how to secure it. We are starting out with three additional nutritionists, making a total of five on the staff to date. Perhaps more will be added later on. We hope you will like these young women and that they will be able to be of real help to you. We are asking your cooperation in restricting their program largely to one of educational work with professional groups in each county, in order to increase the number of persons in your own territory who can give dependable service in educating your people and in order to more adequately cover the state. If you can arrange for a group of four to six counties to join together in requesting a course in nutrition for your nurses, we will be delighted to arrange for it. Just let us know your request. If there are groups of home economists in your county or, better yet, from a group of counties that would like a refresher course in nutrition in order that they might, in turn, offer courses to lay groups, let us know. This is a service we are offering to County Nutrition Councils. Please report this back to your County group. Our nutritionists will not be able to visit individual school lunch rooms but we want you to report to your school people that they are available to conduct all day training centers for managers and cooks of school lunch rooms and to talk at teachers' institutes. We would like for them to have the opportunity to talk to groups of school administrators, elementary teachers, as well as home economics teachers and to college students. We are also offering their services as consultant to welfare agencies in your counties.

We must guard against dissemination of unsound information. In any given community the results of the program for making every one "nutrition conscious" will depend on the ability of its leaders, and the soundness of the instruction given out by them.

A successful nutrition program will enable the housewife who plans meals for her family, the employed person who selects meals in public eating places, and the school child who must buy his lunch in the school lunch room, to find their way through the maze of calories, vitamins and minerals to **good health.** As the Chairman of the National Nutrition Conference said: "For a very significant part of our population nutrition is not a nine-letter word emblazoned with men in white rampant upon a field of vitamins. It is a four-letter word—FOOD—good food and plenty of it.

A national nutrition policy involves a careful balance of the interests of producers, distributors, consumers; of farmers and urban workers; and of nutrition experts. If the attainment of this rugged health and courage means changing your food habits, are you going to be willing to do and to help others to do it?

Clinical and Laboratory Diagnosis of Leptospirosis

CLARA RAVEN, M.D.

The Author

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EXCEPT for an occasional European monograph, textbooks on medicine and pathology have little information on leptospirosis. The various forms of leptospirosis over the world can be tentatively placed into four clinical groups. In the first group are included "mud fever" (Autumn fever), Andaman B, Nanukayami and Pomona fevers, which do not cause jaundice and are never fatal. In another group is leptospirosis due to Leptospira canicola, which is unassociated with jaundice and with minimal mortality for man. In a third group are the Rachmat, Salinem and Swart von Tienen infections, which have frequent jaundice and a high mortality. While in a fourth group are the Hasami infection and Weil's Disease; with icterus mild and confined to the sclera, fatality low (1.9 per cent) for the former and jaundice generalized and fatality high (up to 30 per cent) for the latter infection.

So far only two types of leptospirosis have been recognized in this country. A survey made by us last year indicated that in and around Philadelphia the rat population was highly infected with Leptospira icterohemorrhagiae and the dog population (up to 38 per cent) with Leptospira canicola.* Similar surveys and results have been reported elsewhere. The classical Weil's disease, due to L. icterohemorrhagiae and carried by the rat, is characterized by jaundice; while the canicola fever, due to L. canicola and transmitted by the dog, is associated with a hemorrhagic diathesis. Jaundice and hemorrhage may coexist, the predominance of one or the other depending on the fundamental pathology. The severity of leptospirosis in man is parallel to the depth of the jaundice and the virulence of the particular strain of leptospira for guinea pigs. It is known that in severe epidemics of leptospirosis, light and very light infection may occur. Sporadic mild infections in individuals are difficult to diagnose on clinical grounds alone. Reliable diagnostic methods will prove the incidence of leptospirosis much greater than it is at present.

CLINICAL SYMPTOMS

Leptospirosis is an acute infectious disease characterized by an acute onset, fever, headache, prostration, jaundice, typical muscular pains, frequent symptoms of hemorrhagic nephritis and sometimes symptoms of an acute cerebro-spinal meningitis. There is usually epidemiological information such as swimming, fishing, working in sewers, falling into water or contact with infected dogs. The incubation is from five to seven up to thirteen days. There is early septicemia. The spirochetes then circulate to reach the internal organs. There is fever (39-40 C.), headache, prostration, dry, thickly coated tongue, moderate lymphadenopathy, myalgia, ostealgia, vascular congestion of the conjunctivae, subicteric or icteric sclerae. There may be symptoms of meningitis (headache, vomiting, pain in the neck, Kernig's sign and other neurologic signs). The kidney symptoms include all the gradations from light febrile albuminuria to severe hemorrhagic nephritis; anuria without edema or hypertension. The septicemia is followed by a toxemia which appears in the middle of the first week (third to the ninth day) and is associated with jaundice varying in intensity from a light yellowish coloration of the sclera to a dark orange coloration of the entire body. The percentage with jaundice is not high. Hemorrhages vary in different epidemics. There is at times an iritis, iridocyclitis or neuritis optica. There may be an urticarial or pruritic erythema, papulomacular eruption and herpes. The duration is variable depending on the severity of the infection. For the benign type of infection, the duration is about 10 days. In the syndrome of grave intensity, the duration is about three weeks. Death can occur in any phase of the disease due to intoxication, uremia, hemorrhage, syncope or pulmonary complications. However, recovery is the rule. The convalescence is always long and is dependent on the gravity of the infection and the sequellae of the hepatonephritis. Recovery may take three to four months or longer. There is an occasional recrudescence.

From the literature the following classification for leptospirosis is suggested:

I. Icteric Syndrome

- A. Icterus Gravis.
- B. Icterus with Infectious Syndrome and Recrudescent Fever.
  - a. Benign catarrhal icterus.
  - b. Prolonged syndrome.
  - c. Meningeal syndrome.
  - d. Neuritic syndrome.
  - e. Pulmonary syndrome.

II. Anicteric Syndrome

- A. Meningeal Syndrome.
- B. Myalgic Syndrome.

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Icterus Gravis—Icterus gravis is associated with a sudden onset, temperature 39 to 40 C., violent headache, myalgias, meningeal signs of vomiting, stiff neck, Kernig's sign. Hemorrhage, limited to the nose, is often seen several days after onset. From the third to the sixth day, there is an orange icterus associated with a typhoid-like prostration. The temperature falls, but the pulse remains rapid. There is oliguria, often anuria; catheterized urine specimens are highly colored, containing albumin, casts and red blood cells. The nonprotein nitrogen and urea are increased. The stool is often acholic. Toward the end of the first week the situation is aggravated—dissociation between the temperature and pulse, prostration, uremic crisis, pulmonary edema and death.

Infectious Icterus with Recrudescent Fever—This form is characterized by an intermittent type of fever. The onset is sudden, with chills, prostration, myalgia, often epistaxis and diarrhea. The temperature is typhoidal in type. The icterus and other findings are somewhat as in the gravis type. However, the liver and spleen are definitely hypertrophied in this type. The symptoms gradually decrease in severity and after an apyrexia of from four to eight days, there is a recrudescence of fever with occasionally a return of the icterus. The convalescence is long, but recovery is frequent. In the benign catarrhal course, the symptoms are mild and the diagnosis difficult. In the syndrome with the prolonged course, the various clinical findings, including hepatosplenic hypertrophy, fever and spirocheturia, persist for a long time. The meningeal type has, in addition to the regular symptoms of leptospirosis, those of an acute cerebrospinal meningitis. The neuritis syndrome is interesting in that there are nerve crises, localized to the head, neck, lower extremities and periumbilical region as in the tabetic crisis. In the pulmonary syndrome, there is a complicating bronchopneumonia.

Anicteric Syndrome—It has long been noted that leptospirosis is not always associated with frank icterus. In the anicteric type there may be an acute meningitis with complete recovery, or, after a short symptomless period, a febrile recrudescence. There may be agitation, slight delirium and mental confusion. This type is misdiagnosed as "meningitis with undetermined cause" or "meningeal states". In the absence of icterus, the meningeal type of leptospirosis may be suggested by the suddeness of onset, cellular reaction of the spinal fluid, azotemia, hepatalgia and splenomegalia. It is also difficult to diagnose anicteric leptospirosis with a myalgic syndrome except by the laboratory findings in the blood and urine and by cultures and animal inoculation.

LABORATORY FINDINGS

The laboratory findings in leptospirosis depend on the pathology in the liver, kidneys and the hematopoietic system. Briefly, one finds the following:

Relative to the Kidney—In severe cases, there is an accumulation of chlorides and urea in the blood, numerous renal casts, Ambard's constant is increased; there are large quantities of urobilin in the urine—increased bilirubin in icteric syndromes—increased bile salts with a positive Hay's reaction. The bile pigments are very unstable and oxidize more easily than usual. The blood urea is increased during the course of the disease. It is of interest to note that the retention of urea precedes the jaundice. Leptospiruria begins about the tenth day.

During the Course of the Jaundice the van den Bergh test is more sensitive than jaundice or bilirubin and may be of premonitory significance. The direct and the indirect van den Bergh reactions are positive; however, occasionally the presence of the indirect reaction alone gives evidence of the hemolytic origin of the jaundice.

Blood Picture—There is marked anemia; leucocytosis and eosinophilia; a marked deviation of the Shilling count to the left and an increase of myelocytes and metamyelocytes. The toxic changes in the leucocytes include vacuolization, toxic granules, and Döehle's inclusions. The blood platelets are reduced in number. The coagulation time is prolonged; clot retraction is reduced or absent. There is an increased resistance of the erythrocytes to salt solution. The sedimentation rate is increased. During the first week, leptospirae may be cultured from the blood. Agglutinins can be demonstrated from the tenth to the thirteenth day of the disease and onwards.

Cerebrospinal Fluid in Leptospiral Meningitis—The spinal fluid is nearly always clear and under increased pressure. The test for albumin is weakly positive. There is early a polymorphonuclear and later a lymphocytic predominance; the cell count from the fifth day onward increases up to 200, or up to 400 cells per cm., decreases during the recovery and increases during a relapse. The chlorides are decreased; the glucose and urea are increased. Cultures of the spinal fluid are often positive for leptospirae.

Bacteriology — Bacteriological evidence confirmatory of leptospirosis is of the utmost importance to the clinical diagnosis. Leptospirae are present in the blood in decreasing numbers during the first week of the infection. Leptospirae appear in the urine and leptospiruria continues from about the tenth day and for a time after recovery. Agglutinins and lysins appear in the blood about the tenth day; the titer for leptospira increases during the course of the disease and persists for a long time thereafter. Bacteriological evidence can be deduced by demonstration of leptospirae in the blood, urine or cerebrospinal fluid and at death, particularly in the kidney. Occasionally cultures can be made or/and if these fail, guinea pigs inoculated with blood, urine or cerebrospinal fluid. We have found that the agglutination-lysis test (using serum to be tested and live cultures of leptospirae as antigen, reading the reaction by darkfield microscope) is a reliable and valuable aid in serologic diagnosis. Since cultures and animal inoculations cannot be productive of results until a week or ten days, serological evidence can be obtained earlier. The patient's serum may be examined from about the tenth day and onwards. An experienced laboratory worker can do the agglutination test in one and one-half to two hours.

PATHOLOGY OF LEPTOSPIROSIS

During the septicemic stage, the spirochetes invade the internal organs such as the liver, suprarenals, kidneys, muscles, prostate, thymus, appendix, testicles and epididymis. However, the early immunologic response in man, leads to destruction of leptospirae in all the organs except the kidney and heart muscle where they can be demonstrated histologically. The pathology is variable and will be briefly described here.

Liver—There may be little or extensive change in the liver. In mild infections, there is merely biliary stasis, accumulation of leucocytes and lymphocytes in the portal spaces, cellular hyperplasia and accumulation of hemosiderin. On the other hand, in severe infections, the destruction is seen grossly, with hypertrophy, loss of lobular markings and microscopically, coagulative necrosis, biliary stasis, fatty degeneration, marked macrophagic reaction, cellular reaction and cellular infiltration; the hepatic cells are markedly altered, the normal cell structure absent and the sinusoids congested. The connective tissue reaction is never remarkable.

Kidney—Grossly, there is frequent hypertrophy, icteric coloration, variable hemorrhages and in protracted infections, fibrosis. Microscopically, the lesions may be multiple; the tubular portion is most affected with necrosis and many casts. The glomeruli are often swollen and filled with exudate and bile precipitate; the capsular endothelium is proliferated. There may be fatty degeneration, cellular infiltration and edema of the interstitium. The proliferation of the connective tissue and fibrosis in protracted cases may be very severe. Hemorrhage may be so marked as to simulate hemorrhagic nephritis.

Heart—Occasionally, there is cardiac hypertrophy, often, echymoses of epicardium and endocardium. Microscopically, there is sub-endocardial hemorrhage and round cell infiltration of the myocardium. In cardiac collapse, there is also vacuolar and granular degeneration of contractile fibers.

Lungs—Grossly, there is petechiation of the lungs and pleura. The parenchyma is edematous; the tracheal mucosa is echymotic. Bronchopneumonia is a frequent complication. There may be intra-alveolar and intrabroncheal hemorrhages, areas of leucocytic infiltration, and active phagocytosis.

Intestines—The changes are difficult to gage due to a post-mortem autolysis. Microscopically, there are discrete hemorrhages, edema, cellular infiltration and evidence of degeneration of the muscle coats. Sometimes, the pancreas is the seat of inflammation and hemorrhage.

Hematopoietic System—Grossly, the lymph glands are hypertrophied and hemorrhagic. The spleen is frequently hypertrophied. Microscopically, the lymph glands show cellular proliferation. The spleen shows evidence of homogeneization, thickening of the reticulum, cellular proliferation, a macrophagic reaction with collection of hemosiderin. There is only feeble erythroblastic activity and little proliferation of white cells. Hematophagia is marked in all the organs and is characteristic of leptospirosis. Hematophagia together with the feeble erythroblastic activity explains the anemia.

Nerve tissue—Little change is noted in the nerve tissue excepting for occasional scattering of hemorrhage and cellular infiltration.

Eyes—There are hemorrhages in the conjunctiva, occasionally, the deep layers, choroid, retina, optic nerve and even the orbit. The blood vessels are dilated. There is occasional cellular infiltration and keratitis.

Skin—In the skin there are sometimes cutaneous and subcutaneous hemorrhages and perivascular cellular infiltration.

Striated Muscles—There is evidence of degeneration of muscle fibers, cellular infiltration and hemorrhage—these changes are most marked in the calf muscles.

Suprarenals—Early in the disease there is hemorrhage throughout the gland, later there is infarction. The parenchyma is infiltrated with round cells and leucocytes.

In summary, it is evident that the most severe pathologic lesions are in the kidney. When the liver is markedly affected, the combination (together with the changes in the kidney parenchyma), may be termed the hepato-renal syndrome. This syndrome is characterized by abundant karyokinesis in the liver and kidney cells and especially by the extensive hematophagic reaction.

SUMMARY AND CONCLUSIONS

An effort has been made to describe leptospirosis as a protean infectious disease with signs and symptoms sometimes so mild that diagnosis is difficult except by bacteriological means. The clinical symptoms, laboratory findings and the pathology are briefly presented.

619 Home Savings & Loan Bldg.

Heterophile and Oral Pneumococcal Antigenic Action of Cold Vaccine

H. M. POWELL, Sc.D.

COMPARATIVE importance of virus and bacteria, including even their order of entrance if both are present, as the cause of colds has not yet been fully determined. The study of the presumably earlier virus phase has not yet led to the practical use of antiviral vaccine,[1] much as this might be desirable theoretically. On the other hand, several bacterial cold vaccines, administered hypodermically and orally, have come into sufficient use to necessitate laboratory assays of antigenicity quite apart from the bacterial "count". It appears if such vaccine is antigenic it may have some utility, while if non-antigenic no effectiveness could be expected immunologically.

It has been shown that heterophile antigen (Forssman in type) has a wide distribution among the various types of pneumococci, certain streptococci, and also M. catarrhalis.[2,3,4] Quantitative measurement of this antigen in vaccines composed mainly of these bacteria of the so-called respiratory group therefore may serve as a rough indicator of antigenicity in view of a lack of a better in-vitro assay method. This report sets forth the details of such a quantitative test for heterophile antigen by antibody adsorption methods as applied to oral respiratory vaccine of high bacterial count, namely 'Entoral' (Oral Cold Vaccine, Lilly). Although data are not shown here, the same test may be used with equal ease in evaluating all vaccines of this class. This test is dealt with in Part 1.

This report also sets forth an oral method of assay which we have used for the last few years of the same vaccine. This and other vaccines of this class for oral use include pneumococci of the more important types,[5] and the method of rapid assay is based on a comprehensive report of Ross[6] on protective antibodies following oral administration of pneumococcus type I to rats. Ross dealt both with the extent of active immunity incited orally in rats and measured by immunity tests conducted by injecting various doses of virulent pneumococci into the rats, and also the amount of circulating antibody in orally treated rats as measured by passive mouse protection tests of the rats' sera. In this paper Ross concluded in part, "protective antibodies appear in the blood of a large majority of rats successfully immunized by oral administration of type I pneumococcus vaccines" and "by analogy it would seem that the appearance of such protective substances in the blood of humans following the ingestion of the same vaccines can be interpreted as a sign of increased resistance to this organism". This oral assay is dealt with in Part 2.

The Author

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PART 1: HETEROPHILE ANTIGEN ASSAY

Materials. 1. Vaccine to be assayed; this is a desiccated product in capsule form containing about fifty billion bacteria per capsule.

2. Heterophile antibody serum; this is blood serum obtained from rabbits after repeated intravenous injections of pneumococci rich in heterophile antigen.

3. Washed sheep erythrocytes; this comprises sheep erythrocytes washed three or four times in large volumes of saline and suspended in a volume of saline equal to four times the volume of whole blood from which the erythrocytes were derived. Unit used is 0.1 cc. of this dilution.

4. Fresh guinea pig serum for complement; for use in this assay fresh guinea pig serum pooled from two to four guinea pigs is diluted by the addition of four volumes of saline solution. Unit used is 0.1 cc. of this dilution.

Procedure. The heterophile antigen content of the vaccine to be assayed is measured by determining its power to adsorb heterophile antibody under controlled conditions. For doing this the vaccine is mixed with serum of known heterophile antibody titer and the mixture incubated, following which the non-adsorbed antibody is measured after centrifugation and removal of the vaccine plus its adsorbed antibody. The quantity of heterophile antigen in the vaccine is a function of the difference in titers of adsorbed and non-adsorbed serum. The unit of heterophile antibody used here is the amount of serum causing hemolysis of 0.1 cc. of sheep erythrocytes diluted 1-4 (as described above) in the presence of 0.1 cc. of complement diluted 1-5 (as described above) in a 1.0 cc. volume in one hour at 37° C. Preliminary experiments which need not be set forth here indicated that the single capsule containing fifty

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(Lilly Research Laboratories, Indianapolis, Indiana).

billion bacteria could be assayed most accurately by adsorption against 50 units of heterophile antibody contained in a volume of 2.0 cc. This was the minimum volume necessary on account of the presence of considerable starch vehicle in the desiccated vaccine. The stepwise procedure in adsorption is as follows:

1. Dilute the heterophile antibody serum (after preliminary titration on the day of the test) with saline to a concentration of 25 units per cc.

2. To 2.0 cc. of such diluted antibody add the contents of filled capsule of vaccine and mix thoroughly.

3. Subject this mixture, along with a control tube of 2.0 cc. of such diluted antibody, to a temperature of 37° C. for one hour, with frequent shaking of the mixture to maintain an even suspension.

4. Centrifuge the mixture and determine remaining heterophile antibody content of the supernatant fluid. Determine heterophile antibody content of the unadsorbed serum; this should be 25 units per cc. Since the above supernatant fluid may be strongly anticomplementary, its heterophile antibody titer can best be determined by a two-stage procedure in which the unit of erythrocytes is first added to the various tubes holding different dilutions of the supernatant fluid. After incubation at 37° C. for one hour, the erythrocytes are sedimented, the various supernatant fluids are poured off, fresh saline and complement are added, and the tubes are reincubated an hour at 37° C., and the titers are read.

5. Computation. For convenience in the system of adsorption herein described, a heterophile antigen "unit" is defined as one-half the quantity of antigen which will adsorb one unit of heterophile antibody under the conditions as described. Therefore to determine the number of antigen units in a pulvule (filled capsule) or other dose of vaccine, subtract from 25 the titer of the adsorbed fluid and multiply by 4.

A representative assay is shown in table 1. The non-adsorbed control serum tested full 25 units per cc. The adsorbed serum tested less than five units per cc., giving a difference of 20 or more units of antibody. The pulvule of vaccine therefore is computed to contain from 80 to 90 units of heterophile antigen.

TABLE 1

Heterophile antibody adsorption test of Oral Cold Vaccine

Adsorb 2 cc. of 25 unit heterophile antibody per cc. with contents of 1 pulvule of vaccine for one hour at 37° C. Centrifuge down, and test supernatant fluid for hemolysin by following two stage procedure, using 2 cc. unadsorbed serum as a control.

Tubes	1	2	3	4	5	6	7
Units tested for	5	10	15	20	25	30	0
Adsorbed serum	str. 0.2	0.1	1-5 0.35	0.25	0.2	0.15	0
Saline	0.6	0.7	0.45	0.55	0.6	0.65	0.8
Sheep erythrocytes 1-4	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Incubate at 37° C. one hour. Centrifuge lightly, pour off supernatant fluid and resuspend erythrocytes in 0.8 cc. saline. Add							
Complement 1-5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Incubate at 37° C. one hour and read							
'Entoral' 953013	++	+	—	—	—	—	—
Control	++++	++++	++++	++++	++++	+++	

PART 2: ORAL ASSAY

Method. Our procedure, as modified from the experiments conducted by Ross, utilizes desiccated antigen. This is administered with the greatest rapidity we have found possible of inciting substantial active immunity orally in white rats against type I pneumococcus. Preliminary experiments need not be cited here; therefore the stepwise technique of assay may be indicated as follows:

1. Procure 28 white rats each of about 100 grams weight.

2. Mark 14 of these as tests and 14 as controls.

3. At about 8:00 A.M. give orally to each of

the 14 test rats the contents of a pulvule of oral vaccine emulsified in about 2 cc. of water. This can be done with a 2 cc. syringe fitted with an intravenous size needle, the bevel of which has been filed off and smoothed up, and preferably fitted with a solder or bronze ball tip.

4. At about 4:00 P.M. the same day repeat Step 3.

5. The next day again repeat Step 3 at about 8:00 A.M., noontime, and about 4:00 P.M. A total of five oral doses is used.

6. Allow four days to elapse.

7. On the fifth day after the oral doses described, divide the 14 test rats into seven pairs with appropriate marks. Do the same with the 14 control rats. Administer intraperitoneally to the various pairs of tests and controls increasing decimally diluted doses of 8-hour virulent pneumococcus type I culture using from 10^{-2} to 10^{-8} cc., inclusive; i.e., seven dosages being used.

8. Keep rats under observation for seven days. Record deaths and survivals.

A representative assay is shown in table 2. It is observed that the orally immunized rats withstand about a thousand times as much type I pneumococcus culture as do the normal rats. Furthermore this immunity test is conducted with these results on the seventh day from the time oral immunization has started, i.e., five days after the last of a two-day course of antigen treatment. We have observed that this vaccine, either when freshly made or after standing at room temperature for as long as three years, gives the same general degree of potency.

For greater economy in the use of rats, 16 to 20 rats, instead of 28 rats, may suffice for a test provided four to six test rats are omitted which otherwise would be given the smaller live culture doses, and four to six control rats are omitted which otherwise would be given the larger live culture doses. In other words, a glance at table 2 and experience in conducting many tests will indicate that some of the rats at the lower end of the first column and some at the upper end of the second column as shown in table 2 might be omitted to give better economy of test animals.

TABLE 2

Immunity test-dose of type 1 pneumococcus (cc)	Rats orally immunized with cold vaccine	Normal control rats
10^{-2}	Dead 2 days	Dead 2 days
	Dead 2 days	Dead 2 days
10^{-3}	Dead 3 days	Dead 2 days
	Survived	Dead 2 days
10^{-4}	Survived	Dead 2 days
	Survived	Dead 3 days
10^{-5}	Survived	Dead 2 days
	Survived	Dead 2 days
10^{-6}	Survived	Dead 2 days
	Survived	Dead 2 days
10^{-7}	Survived	Dead 3 days
	Survived	Dead 5 days
10^{-8}	Survived	Survived
	Survived	Survived

DISCUSSION

Various vaccines and antigens used for active immunization have been tested for antigenicity in the laboratory in the past by a variety of methods. These include nitrogen content; agglutinability; agglutinin, opsonin, or complement fixing antibody-stimulating power; active immunizing power against virulent cultures; and antitoxin-stimulating power. Of the methods applicable to bacteria immunity to which is antibacterial, it appears that antibody adsorbing power coupled with active immunizing power against virulent cultures may be of substantial value. In light of the potency of vaccine in this respect, especially when administered by the oral method, and also the stability of such potency of this antigen in the dry form, one may anticipate considerable usefulness of the test for vaccine control purposes.

CONCLUSIONS

1. A rapid serological method of assay of mixed bacterial vaccine comprising pneumococci and other bacteria of the "respiratory group" is described. This is based on the heterophile antibody adsorbing power of such vaccine under controlled conditions. The method is accurate to around 10 per cent.

2. A rapid active oral immunization test is described in rats, using the 'Entoral' brand of oral cold vaccine. This test can be done by anyone having access to white rats and virulent type I pneumococci. Five doses of this antigen given to a rat over a period of two days incites immunity against 1000 M.L.D. of culture on the seventh day.

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The prognosis as to fatality of undulant fever is generally good, only 3 or 4 per cent of reported cases terminating fatally. The ultimate cure as to freedom from symptoms is problematical, no two cases reacting similarly. A large number of cases, almost all, have relapses or recurrences of symptoms to some degree, sooner or later.—Ragnar T. Westman, M.D., Kansas City, Kansas; Jour., Kansas M.S., Vol. XLII, No. 11, November, 1941.

Treatment of Impetigo Contagiosa

MILTON T. EBNER, M.D.

IMPETIGO contagiosa is an acute, infectious disease of the skin, which is characterized by the development of localized, erythematous areas, upon which discrete, thin walled vesicles and bullae rapidly form. These vesicles and bullae soon become pustular, erupt and discharge a thin straw colored exudate, which rapidly dries and forms a yellowish to brown colored superficial crust. The crusts gradually accumulate more and more layers until they become quite thick and heavy. The lesions coalesce as the infection progresses, producing polycylic, circinate, and variegated patterns on the skin. The yellow, thin exudate is the infectious agent in the spread of the disease, by human contact or through articles that have been contaminated by the afflicted person.

The disease is caused by a mixture of Staphylococci and Streptococci. The areas of predilection are, the face, ears, neck, forearms and hands, although any part of the body may be attacked. The pathological process is so superficial that, as a rule, scars do not result from the infection. Impetigo contagiosa is often secondary to pediculosis capitis, scabies, and insect bites. The disease may attack any age, regardless of sex, but children are more susceptible than adults.

Successful treatment depends upon the complete removal of the dry crusts that form and the thorough application of suitable medication to the oozing, erythematous base, lying directly beneath the crusts. These measures should be outlined in detail to the patient. Strict cleanliness is to be observed by the patient at all times. The unaffected portions of the skin, adjacent to the involved areas, should be washed several times daily with Castile soap and warm water, rinsed and dried. Following this, 3 to 5 per cent U.S.P. ammoniated mercury ointment should be lightly massaged into the non-infected parts. This procedure is always performed before any attempt is made to remove the crusts. Once this prophylactic measure has been accomplished, then, and only then may one direct his attention to the treatment of the affected areas. The crusts and surrounding areas are cleansed with Castile soap and warm water, rinsed and dried. Pledgets of cotton, soaked with warm mineral oil, or boric acid solution, are then applied to soften the crusts.

When the crusts are sufficiently softened they may be easily lifted from the skin by the use of forceps. The crusts should never be removed by force because of the danger of traumatizing the underlying tissue. The trauma produced may lead to the production of scar tissue. In the process of taking off the crusts, extreme caution must be used to insure complete removal. Very frequently there is a tendency for the outer edge of the crust to be more adherent to the underlying skin, with the result that this portion is allowed to remain. If this is permitted, it allows an ideal incubating center for the causative bacteria. Then, too, the overlying crust prevents the medication from coming in contact with the bacterial invaders. To avoid this, after the major portion of the crust is removed from the underlying denuded area, it is advisable to take a pledget of dry, sterile cotton and stroke rather forcibly away from the center of the lesion and against the free edge of the remaining crust. This manipulation breaks the crust away from its attached edge or lifts it so that it can easily be removed by forceps. Following the removal of the crust, the entire denuded area should be vigorously massaged with the following ointment, giving special attention to the margins of the lesions.

℞

Ung. Ammoniated mercury U.S.P. 3-5% 30.

Sig: Remove crusts as rapidly as they form, and massage ointment into affected parts.

The following prescription may be used in place of Ammoniated mercury ointment.

℞

Ung. Quinolor (Squibb). Half to full strength. 30.

Sig: Remove crusts as rapidly as they form, and massage ointment into affected parts.

It is important to have the crusts removed as rapidly as they form and then follow with the ointment application and massage, after cleansing the parts. Any pustules that form should be opened and drained. The parts should be cleansed with Castile soap and warm water, rinsed, dried and the 3 to 5 per cent Ammoniated mercury U.S.P., or Quinolor ointment rubbed into the base of the lesions.

Patients should be instructed concerning the contagiousness of the disease and they should govern their activities accordingly. All articles coming in contact with the lesions should be sterilized.

During the course of the infection the patient should make daily visits to the physician's office

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Dr. Ebner was selected to write an editorial summary on the above topic by a committee of leading Ohio Dermatologists.

for removal of crusts, opening pustules and ointment massage, and general observation.

When the infection involves hairy areas on the skin, it is advisable to keep the hair shaved as close as possible. The area should be treated in the same manner as outlined for the non-hairy regions. The razor and accessories used in shaving should be sterilized by boiling in water, by washing in tincture of green soap or by placing in 70 per cent alcohol.

If the exudation from the lesions is quite profuse, one may use the following:

℞

Zinc oxide, powdered 5%
Ung. Ammoniated mercury, U.S.P. 3-5%
qsad. 30.

Sig: Remove crusts as rapidly as they form, and massage ointment into affected parts.

Or,

℞

Ung. Ammoniated mercury, U.S.P.	3-5%
Zinc oxide, powdered	8.
Starch	8.
White petrolatum qsad.	30.

Sig: Remove crusts as rapidly as they form, and massage ointment into affected parts.

In the event that the lesions persist and continue to spread after a period of four to five days of treatment, it is permissible to increase the strength of the Ammoniated mercury U.S.P. ointment to 8 per cent or 10 per cent. However, the possibility of producing dermatitis from the mercury compound must always be kept in mind. This thought should also be conveyed to the patient so that he or she may recognize its onset. At the first sign of intolerance the mercury compound medication should be discontinued and another means of attack instituted, as the following:

℞

Potassium permanganate tablets 0.32

Sig: One tablet to two quarts of warm water and apply as compresses, 15 minutes every two hours, after the crusts are removed.

Or,

℞

Liquor alumini acetatis 240. cc.

Sig: Dilute 1-20 with warm water and apply as compresses 15 minutes every two hours, after crusts are removed.

Between applications of the compresses, the following prescription should be used:

℞

Talc, purified	20.
Zinc oxide	10.
Glycerine	5.
Lime water qsad	240. cc.

Sig: Remove crusts, shake, and apply to affected parts.

After the dermatitis has subsided, the above applications are discontinued and the following substituted:

℞

Acid salicylic	—
Resorcin	aa 0.3
Benzoinated lard	
Petrolatum	—
Lanolin	aa 10.

This is to be freshly prepared.

Sig: Remove crusts and apply to affected parts with massage.

Cold quartz ultraviolet radiation to the involved areas is an important adjunct to treatment and considerably shortens the duration of the infection. The ultraviolet radiation is administered in suberythema doses.

In a few recalcitrant cases where we have either a virulent infection, or a lowered resistance of the host, it may become necessary to hospitalize the patient. In this type of cases, after cleansing the parts and removing the crusts as previously outlined, continuous warm compress applications of 1-4000 or 1-8000 dilution of potassium permanganate, produces a favorable result.

If the above outline for treatment is carefully followed, the average case of Impetigo Contagiosa can be cured in five to fifteen days.

When the Impetigo lesion has healed, there is a moderate erythematous area that remains at the site of the original lesion. This gradually fades and disappears in a few weeks.

Hypoplastic Anemia—Differential Diagnosis

1. History of toxic medicinal or industrial agents.
2. No weight loss, no anorexia.
3. Normal basal metabolic rate.
4. Hypochlorhydria.
5. Adenopathy, minimal (reciprocal lymphopoiesis).
6. No splenomegaly.
7. Granulopenic leukopenia, no immature myelocytes.
8. Thrombocytopenia, purpura prominent sign early.
9. Anemia, normochromic, normocytic.
10. Reticulocytes, absolute decrease.
11. Red blood cell fragility, normal.
12. Erythrocyte sedimentation index (corrected) normal.
13. Plasma iron high.
14. Sternal bone marrow, panhypoplasia affecting all normal elements.—Charles A. Doan, M.D., Columbus, Ohio; Jour. Mo. S.M.A., Vol. 38, No. 12, December, 1941.

Mattress and Pillow Coverings

HARRY IKER, M.D.

CONSIDERABLE controversy exists on the matter of mattress and pillow coverings, their application, value as an aid in the treatment of dust,[1] epidermal material, contact[2] and inhalant allergies.[3,4,5] This paper was prepared with the hope of clearing up a number of troublesome factors in the minds of many who would like to prescribe, or suggest their use to their patients, but are in a semi-skeptic state as to their value and assistance; whether or not they should have their patients get them in a local retail store, or purchase them from those companies manufacturing custom-built coverings, sold only on recommendation of the physician. This paper holds no brief for either side of the question, and offers the data and information, as it exists, without an attempt at dogma.

The first materials used, or suggested, by the allergist,[5] were oil cloth, rubber sheeting, "lotus cloth", and oiled silk. There were no commercial producers of coverings in the early days of allergic studies, such as we have today. It was necessary for a patient to send to a department store and purchase oil cloth, or rubber sheeting, and then have someone make up the covering at home.

The process of making this type of home-made covering was grossly inadequate and leaked very badly. The leakage was caused by improper seaming, faulty fitting, and bad closure. The result after a period of usage being minor, usually the aftermath was a pronounced nervous reaction to any covering (this condition was usually caused by an ill-fitting covering that rolled up under the patient's back, and became knotty; in addition, filled with excess air, the heavy double coated fabrication used at that time caused a rise in the thermal value of the covering, creating much psychic resistance to this type of mechanical therapy).

The early 1930's saw an emergence from these home-made products, to a manufactured product made locally in a number of metropolitan areas. This product was either of "oiled silk" (linseed oil filler), "lotus cloth" (a reversable gum type, semi-tacky rubber cloth, with mica to reduce tackiness), or a compound rubber backing on a medium grade cotton "cambric sheeting"; (two methods of rubber fabrication being used: (1) the spread layer method, (2) the calender type method). There was little or no scientific application to this type of covering. The coverings were styled and finished in the same manner as those made in muslin, and used as a regular mattress cover. The application of slide fasteners ("Talon", "Kwik", "Prentice", etc.) and cooperative snap buttons, had made their appearance about that time. Some manufacturers used cooperative snap fasteners (button snaps), which released a great deal of dust and dirt due to large wedge openings between the fasteners, and others using a slide fastener which made a perfect seam closure, and reduced the dust incidence to a minimum. There were several other factors that caused a great deal of difficulty in the actual application of the coverings: The absence of suitable traction surface to retain the bed sheets and pillow cases, and prevent their sliding off the bed, and retaining their placed position; also, the factor of contact with the actual fabrication itself. In many instances, patients found that they were sensitive to the plasticized compound, either as an inhalant, or on a contact basis which caused much distress and discomfort.

The Author

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The introduction of cellulose nitrate and cellulose acetate, and vinyl halide films (in conjunction with synthetic resins and plasticizing agents) as fabricating agents, applied to cloth for the use of dust prevention, in the later thirties, was heralded as somewhat of an epic by the manufacturers of such products. The major presumptions were that they were free of odor, also impervious to the constant association with perspiration, hair oils, body waxes, night creams, etc., and that they could be washed with impunity, dried and ironed with low heat. (To date, no scientific data is available as to manufacturers' claims for tests such as abrasion, constant reoxidized perspiration infiltration, fatty acid decomposition, and bond release of the laminated fabrication). All these resins and coatings being of a thermoplastic nature, become problems in the extreme hot and cold weathers, in that they are affected to a degree by becoming "tacky, harsh, boardy, crackly, and noisy" (this data is in part by personal communication, and actual usage).

At the present writing there are a group of organizations that make up mattress and pillow coverings for sale principally through mail order organizations and local department stores, and emphasize their value as being suitable in the treatment of asthma, hay fever, allergy, eczema, rhinitis, etc. The coverings are stock items (being of a postulated standard width, length, and

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depth); the finished coverings are not made up on a scientific basis, as is claimed for them, but rather on a price production basis.

Through personal communication in various sections of the United States, a number of retail stores (drug, department, and mail order) were contacted and questioned as to longevity guarantees, service features, etc., DS coverings.* In all cases, the answer was "We do not guarantee. We cannot accept return of the coverings, that have been used, for any reason." These facts, in themselves, are very important inasmuch as the doctor-patient relationship is in a measure lost, due to skepticism on the part of the patient on the one hand,[6] and the desire to sacrifice thrift and quality, for a small saving on the other hand.

On a basis of personal communication, there are innumerable instances where the allergist suggests that the patients cover their pillows and mattresses (also box springs and studio couches, or any such sleeping equipment that may cause dust contamination) and offers the patient a self-addressed order blank, that is self-explanatory as to measurements, price, delivery, etc., from any of the well known custom covering organizations, with the added suggestion that a cheaper type of covering can be purchased locally, if so desired. Where skepticism is a factor, there is little effort at cooperation.[6] Where price is a factor, the patient purchases locally. In the event that the covering goes wrong in a short time, there is very little or no effort made for replacement. The patient, not understanding the cause for leakage and renewed distress, and the allergist not receiving the proper cooperation (for well protected bedding), is in a quandary as to the patient's condition.

The value in the application of mattress and pillow coverings, as compared with the value (and use) of hypo-allergenic mattresses and pillows, are manifold. The pros and cons are as follows:

1. The application of properly made (double stitched and tightly bound) and well fitted coverings will reduce dust incidence and contamination to the patient, to a minimum (this premise is based upon application and actual usage).
2. Coverings being nonporous (and having traction surface) possess the ability to retain as surface dust (i.e., composite mixture of bed-sheet and pillow-case lint, starch grains, and resinous particles, soap powder curds, and laundry silicates, cellular cotton linter material from serpentine quilted bed-pads, human dander, wool, rayon, and silk fibers). This composite dust is easily removed, inasmuch as there are no crevices or indentations to hide it. Its removal is accomplished either with a soft, moist (damp) cloth, and a rinsing in clean water, or with a suitable vacuum cleaner attachment.
3. The value of coverings for travel is of major importance, in that it is unnecessary to carry special pillows and special mattresses. This is also true of those away from home, at colleges, special schools, etc.
4. The replacement of coverings on a depreciation basis is much less (on a basis of ratio) than either the hypo-allergenic pillow or mattress.
5. There are a number of mattresses on the retail market, termed as "hypo-allergenic", "nonallergic", etc.; the names are variable, many with value, others doubtful. Many of them have stated information attached (in advertisements and mailed folders, etc.), indicating that they are of a nonallergic nature. The types vary, most of them have a nitrocellulose, or rubberized back, ticking (mattress covering) and are filled in the same manner as an ordinary mattress (usual filling being garnetted linters,* either sisal padding, which is quite dusty, or burlap; either spring construction or 100 per cent garnetted linters*); the major joker in most of these are the air ventilators, which shoot out air, and dust from the interior of the mattress. The best of all of these "hypoallergenic" mattresses are quite expensive, such as: foam rubber, uncontaminated China cotton (contamination is linters stock), treated and washed pure horse mane and tail hair mixture, Latex treated hog hair, etc.

Many of the factories producing such "garnetted" felt stock (i.e., felted cotton linters, or cotton linters and jute fiber mixtures, etc.) in order to reduce cotton linters dust losses, which run in many instances (dependent upon the quality of the cotton linter stock used) as high as 20 per cent, and also to produce smoother running of carding cylinders (a great factor in cost production, due to the clogging of carding cylinders with linter motes, cottonseed hull fiber, and stray wood slivers, etc.) use a high powered superfine vapor spray, oil in water emulsion. The oil emulsion used, prevents this clogging and reduces the cost of cylinder cleaning. Formulas for oil emulsions being variable by different manufacturers, I offer a formula used by one company: oleic acid, turkey red oil (sulfonated castor or cottonseed oil) and a low grade petroleum oil of medium viscosity), which is mixed in the proportion of 20 per cent oil and 80 per cent tap water to form a milk solution. Many firms use additional surface tension reducing, or "wetting" agents, to promote greater penetration of the aqueous emulsion. This spraying takes place during the actual shredding of the cotton linters fiber stocks, immediately prior to "garnetting" or the combing out process. This emulsified oil, when exposed to the air over a short period of time, will form mold growths.

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* DS Coverings (Department stores, mail order, etc.)

*Possible further garnetted linter stock contamination.

What Shall We Do for the Pregnant Woman With Syphilis

LOUIS J. ROTH, M.D.

FROM the physician's viewpoint, we should regard every pregnant person as syphilitic until proved otherwise. This suspicious attitude will frequently bear fruit in the most unexpected cases. A steady increase in our index of suspicion will often help eliminate a good many of the undiagnosed complaints of the mother, and will bring the physician genuine self-satisfaction in the knowledge that he was responsible for bringing a healthy baby into this world.

The laity is now conscious of this imitator of many of the other diseases of the body. The physician, as well as the laity, has benefited from this spread of knowledge. It has been only a short time since the word syphilis was spoken in whispers. Even we, as physicians, were guilty of this reticence. However, a marked change has taken place. Men and women now come into our offices and demand blood tests. Physicians no longer feel that the expectant mother will become indignant when it is suggested that a thorough examination includes a blood test for syphilis. Indeed, he may well feel that with her knowledge of the subject she may think her doctor negligent if he does not take a blood test.

Pregnancy brings with it a marked rise in the defense mechanism of the body, thus the effect of pregnancy on syphilis, especially when the syphilitic infection has been acquired just before, coincident with, or shortly after impregnation, has been to completely suppress the early symptoms of syphilis, or, if they are present, to make them much milder. In a study of syphilitic pregnant women it was shown that 40 per cent did not present any signs of syphilis—subjective or objective. The only possible way to detect these cases is by means of the blood test. A clear skin, a good family background, a report of well-being, the general appearance of culture—all these are no barrier to the spirochete. There still persists a superstition that pregnancy is frequently the cause of a false Wassermann. This is wholly unwarranted. A pregnant woman with no history of syphilis in her family, and no clinical signs of syphilis nevertheless has syphilis if two or more blood tests, by different laboratories, are positive.

There are 60,000 infants born with syphilis in the United States every year. There are 25,000 still births or miscarriages every year because of syphilis. Five out of every six untreated expectant syphilitic mothers will bear infected babies. Two to four per cent of all infants in the United States are syphilitic. These appalling statistics are a definite challenge to the medical profession. We have the drugs; we know the symptoms; we have the diagnostic tests; all we need is to give the babies and their mothers a break by insisting on a blood test at the earliest possible date.

The Author

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Our aim, as Stokes so aptly put it, "should be to anticipate the syphilitic child rather than to accept it as a consequence." Our treatment during this period is for the child and not for the mother. Turner and McKelvy, in a study of a series of cases, report the influence of antisyphilitic drugs upon the outcome of pregnancy. They showed that in 268 pregnancies without any treatment 54 per cent of the babies were born living and 46 per cent dead, while 64½ per cent of all these cases were syphilitic. In 82 cases treated before pregnancy, but not during pregnancy, 82 per cent resulted in living babies and 18 per cent dead, with only 8½ per cent syphilitic; 391 cases treated during pregnancy showed 90 per cent living, 10 per cent dead ond only 18 per cent leutic; 202 cases treated before and during pregnancy showed 93 per cent living, 7 per cent dead and only 4½ per cent syphilitic. Such a drastic drop from 64½ per cent to 4½ per cent shows the remarkable effect of early and persistent treatment.

Many other series of cases have shown that treatment instituted before the fourth month of pregnancy and continued through to term will result in 90 to 95 per cent of healthy and living children. If treatment is started between the fifth month and the tenth month, the percentage of normal infants born is lowered to 77 per cent. Even if treatment is delayed to the ninth month the percentage of normal babies born will be 75½ per cent as compared to only 35½ per cent if no treatment is given. Thus, no matter how late in pregnancy treatment is started the percentage of syphilitic children born will be lowered. The amazing benefits which can accrue from early and continuous treatment is self-manifest when statistics show that out of every six children born to untreated mothers five are syphilitic;

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whereas, if treated early nine out of ten babies are born living and normal.

While the effect of pregnancy on syphilis is to suppress or make its symptoms milder, the effect of syphilis on pregnancy is just the reverse. In the Johns Hopkins Clinic 34½ per cent of all foetal deaths were due to syphilis, which does not take into account the tragedies of congenital syphilis in the surviving infants.

The principles which determine the treatment of the syphilitic pregnant woman, are:

First, treatment during pregnancy is for the child and not for the mother;

Second, since no evidence of syphilis pathology has been found in any foetus under five months, the aim in early treatment of pregnant syphilitic women is to prevent infection of the foetus. However, after the fifth month the spirochete invades the foetus and therefore treatment at this time is to effect a cure of the syphilitic foetus.

Third, give neoarsphenamine or marpharsen, alternating or in conjunction with bismuth subsalicylate.

Fourth, plan treatment so that it starts and ends with neoarsphenamine or marpharsen.

Fifth, treatment must be continuous until time of delivery. No rest periods. Pregnant women tolerate treatment very well. Urinalysis should be made every week, the sclerae should be watched and the blood pressure taken at regular intervals. Before each arsenical injection, the patient should be questioned whether the last injection produced any itching or eruption of the skin. Do not fear miscarriages or abortions from treatment, and, finally, continue treatment for the cure of the mother after delivery.

Specifically, how, when and with what shall we treat these patients? Given a woman one to five months pregnant, with a positive blood test, whose infection is rather recent, weight 100 to 120 lbs., urine, sclerae and blood pressure normal, treatment should be as follows: Neoarsphenamine 0.3 gm. intravenously and 1 cc. bismuth salicylate, intramuscularly, each week for 10 weeks. The neoarsphenamine and bismuth may be given on the same day or three days apart. If no reaction occurs after the third injection of neoarsphenamine the dosage may be increased to 0.45 gm. each week. Starting the eleventh week, the patient should receive injections of bismuth only for the next ten weeks. Bismuth is then discontinued and 0.45 gm. neoarsphenamine is given for the following ten weeks. This alternating type of treatment is continued until delivery.

If the patient weighs more than 120 pounds we can start treatment with 0.45 gm. of neoarsphenamine instead of 0.3 gm. However, if the patient is obese and not very muscular, we must be careful about increasing the arsenical dosage, as this type of patient is more prone to reactions. But, if the patient is muscular and weighs 150 pounds or more, the dosage of neoarsphenamine may be gradually increased to 0.6 gm. With patients having a history of syphilis for five years or more, treatment may be started with a series of ten weekly injections of bismuth, to be followed by ten weeks of neoarsphenamine. This alternating type of treatment should be followed until time of delivery.

It is an established fact that the older the syphilitic infection before pregnancy, the better the chance for the delivery of a normal child. To illustrate: A pregnant woman in the early stages of syphilis will often abort; her second pregnancy usually results in a stillborn; her third pregnancy may result in an alive, syphilitic child, while her fourth pregnancy may produce a healthy, normal child. This is known as Kassowitz' Law.

While the prolonged treatment for syphilis seems to most patients an ordeal, there are some things the physician can do to ease the pain and to eliminate the fear with which the patient approaches each treatment. These are simple and are not time-consuming, but to the patient they differentiate the considerate physician from the calloused one. A sharp needle will win the patient's gratitude. This can be accomplished by a few strokes on a hone until the edges of the needle feel smooth to the finger—an operation that takes less than half a minute. In administering neoarsphenamine an 1¼″ needle, 23 gage, is preferable. For bismuth, use of a 2½″ needle, 20 to 21 gage, injected into the upper outer quadrant with a sharp dagger thrust will not be painful and no sterile abscesses will result. The sharper the needle and the quicker the thrust the less pain for the patient. Another refinement that has pleased many patients has been the relief from the unpleasant taste and smell that most patients experience when neoarsphenamine is being administered. This can be accomplished by allowing the patient to inhale the essence of peppermint, during the treatment.

Extensive statistics collected by the American Co-operative Clinical Group show that continuous treatment is far superior to intermittent treatment. This also applies in the treatment of pregnant women.

Whether to use bismuth and the arsenicals simultaneously or alternately is largely a matter of the individual doctor. One group believes that the spirochete becomes tolerant of any drug if used too long, so they recommend the use of neoarsphenamine or marpharsen for ten weeks and then bismuth for ten weeks. Another group believes that the greater amount of the intravenous arsenical is eliminated in the first 72 hours, and with treatment given only once a week, three to four days of the week remain when the body is left largely to its own resources. For this reason, they advise the use of neoarsphenamine and bismuth during the same week. The third and larger group has adopted a compromise method, giving neoarsphenamine and bismuth once a week for the first ten weeks, then followed by alternate ten weeks courses of bismuth and neoarsphenamine. In this way, the body is receiving enough drugs in the first ten weeks to insure a constant maintenance of some spirocheticide in the body. The use of alternating courses thereafter insured against the spirochete becoming drug-resistant.

The reactions of pregnant women to treatment are about the same as those who are not pregnant. Some of these reactions may be prevented by close observation. If we watch the sclerae we may prevent extensive liver damage by immediately discontinuing all drugs. By testing the urine for albumin, every one to two weeks, we may save the kidneys from unnecessary damage, if we discontinue bismuth, the heavy metal which is injurious to the kidney. In taking the blood pressure every week, when a rise is evident we may avoid some cardiovascular accident by reducing the dosage or discontinuing the neoarsphenamine or marpharsen entirely. A severe exfoliative dermatitis is often avoided by discontinuing all arsenicals when an itch or body eruption begins to manifest itself.

There is one rare and severe complication to which the pregnant woman is more susceptible than the non-pregnant syphilitic woman, and this is hemorrhagic encephalitis. This complication, though rare, is almost always fatal. There were reported in the literature 46 deaths in women from acute hemorrhagic encephalitis up to 1936. Thirty-four of these were pregnant women. Frequently the symptoms resemble the toxemia of pregnancy. In our clinic at Ohio State University, we have had two such fatalities in the last ten years. Usually the first sign is marked headache, followed by convulsion, which may be preceded to apathy or mental confusion. These convulsions increase until the patient becomes comatose. There is loss of sphincter control and just before death the temperature may reach 106-107°. Autopsy usually shows a severe edema of the brain and punctate hemorrhage.

There are many theories as to the cause. Most authorities agree that it happens more frequently when large dosages of neoarsphenamines are given. Meirowsky showed that less deaths occurred from this complication when the dosage of neoarsphenamine was small. Only one death took place in every 162,800 injections when 0.6 gm. or less was given; whereas, the fatalities increased to one death in every 3,000 injections when more than 0.6 gm. of neoarsphenamine were given. Treatment consists of no drugs if headache is complained of. Should convulsions develop spinal puncture should be made, draining at least 50 cc. of fluid; 1 cc. adrenalin should be administered subcutaneously every four hours. Venesection, withdrawing 60 to 100 cc. of blood is recommended. Bicarbonate of soda is given in large doses, and, for the anoxemia of the brain, inhalations of oxygen are suggested. It is possible that with the introduction of marpharsen this complication may not occur.

One hundred and sixteen pregnant women were treated with marpharsen and bismuth at Jefferson Medical College Hospital. The conclusions reported were that marpharsen did not equal neoarsphenamine in protecting the foetus during the period of treatment; that marpharsen did not equal neoarsphenamine in producing healthy infants, and, that very frequently marpharsen caused distressing gastro-intestinal symptoms. However, in a personal conversation one of the leading syphilographers at Johns Hopkins Syphilis Clinic, expressed the opinion that marpharsen was just as efficacious as neoarsphenamine and that the reactions were much less.

For the past two years we have been using marpharsen in the Clinic at Ohio State University and are of the opinion that the reactions are less and probably the end results will be as good as neoarsphenamine. In giving marpharsen, the procedure is just the reverse as when neoarsphenamine is given. Neoarsphenamine must not be aerated or it might become toxic, and it must be given slowly 0.1 gm. per minute; whereas, marpharsen should be aerated thoroughly or else a venalgy will result and it must be injected rapidly to avoid this same pain along the vein. A larger caliber needle, preferably 21 gage, should be used to facilitate rapid injection. It will be some time before the relative place of marpharsen in our chemotherapeutic armament will be definitely established. To be sure, it has gained a definite foothold, and time will prove its true value.

Much has been written about malarial therapy for syphilis. Can this treatment be used in pregnancy? No. It is much safer to give neoarsphenamine and bismuth. Is it necessary to treat every syphilitic woman during each pregnancy? If the woman has been thoroughly treated before pregnancy and her blood test is negative, I do not believe that she should be treated during pregnancy. If she is Wassermann fast, it is wise to treat her during pregnancy. Shall we take spinal tests in syphilitic pregnant women? No, because we are trying to cure the child, not the mother. After the sixth month spinal punctures might produce an abortion.

SUMMARY

If the index of suspicion of the medical profession to the possibilities of syphilis are sufficiently aroused and every pregnant woman is given a blood test, the amount of congenital syphilis in the United States can be reduced nine-tenths. There are 60,000 babies born with syphilis every year in this country. With vigilance and correct treatment during the gestation period these 60,000 could be reduced to 6,000. What a saving in misery, mortality and money! Treatment begun before the fifth month and continued until delivery means that 95 per cent of these babies will be born living and healthy. If these mothers are not treated during pregnancy five out of every six children born will be syphilitic. During treatment, watch the sclerae, the urine, the skin and the blood pressure.

The pregnant woman bears treatment well and if the above precautions are taken the medical profession can do for congenital syphilis what it has done for typhoid fever, smallpox and diphtheria. Here is a challenge. Let us accept it!

350 E. State St.

Extrasystoles

The diagnosis of extrasystoles can usually be made on physical examination. The only cases which give trouble are irregular extrasystoles of great frequency and constancy. I have seen a number of such cases which could not be positively differentiated from slow auricular fibrillation without an electrocardiogram.

The history is of importance since extrasystoles usually occur when the heart is quiet, i.e., when the patient is at rest. They are most frequent and most troublesome just as the patient settles himself for sleep. Many patients become quite panicky, sit up in bed, become dyspneic, etc. At least sleep is disturbed or impossible until they cease. If they are noted at the time of examination the diagnosis can usually be cleared up by having the patient exercise until the heart rate rises to 100 or more, upon which the ectopic beats disappear, to reappear when the rate returns to its former level.

As to treatment, the first and most important step is to search for and if possible to eliminate any causative factor. Always suspect excessive smoking in younger patients. It is important to remember that in the case of a patient who is taking digitalis and whose heart is known to have been previously regular, the occurrence of extrasystoles is an almost certain sign of overdigitalization. At any rate, the digitalis should be stopped for several days as a precaution.

As to further treatment, quinidine is of great service and should be administered if the patient is greatly disturbed by his heart. It may be given in 3 to 6 gr. doses throughout the day, or only in the evening if the chief disturbance is at bedtime. In the latter case give 3 to 6 grains at 8 or 10 or at 7 and 9 p.m., depending on the patient's bedtime.

And let me urge you not to draw a patient's attention to the fact that he has an irregular heart, in case he is not already aware of the fact!—James F. Churchill, M.D., San Diego, Calif.; Rocky Mountain Med. Jour., Vol. 38, No. 12, December, 1941.

Diagnostic Hints in Endocrinology

EDWARD PODOLSKY, M.D., Brooklyn, New York

Poor circulation, with bluish and cold extremities, myocardial asthenia, reduced blood pressure are some of the common evidences of adrenal insufficiency.

The upper teeth are large in under-activity of the anterior lobe of the pituitary.

In Graves' disease there is a distinct lagging of the upper eyelid in relation to the upper edge of the cornea in motion from above downward.

Another constant eye sign observer in Graves' disease is a peculiar twitching of the eyes at the instant of changing the movement of abduction to that of adduction.

Bitemporal heminposia with the outer fields of vision impaired is one of the constant signs in tumor of the pituitary gland.

The iris of a patient with hypoadrenia while it reacts readily to light, contracts very slowly.

The administration of thyroid extract to a patient already suffering from thyroid toxemia always aggravates the symptoms.

Attacks of acute, circumscribed cutaneous edema and of gastric intestinal and sudoral hypersecretion is a common sign in parathyroid insufficiency.

In infants, severe atrepsia, skeletal nanism, with thick, short, deformed fragile bones are signs and symptoms of total thymus insufficiency.

In Graves' disease the sclera will often show above and below the cornea. Most frequently it shows from below, or vice versa. It is best observed when the eyes are at rest.

The child suffering from hypoadrenia exhibits pallor, a pasty look to the skin, a flabby musculature, a lack of circulatory tonicity, a feeble cardiac activity, cold hands and feet, loss of appetite and loss of weight.

Severe epigastric pain, radiating to the back, obstinate vomiting and diarrhea, followed by profound weakness, reduction of blood pressure, low temperature, cold sweats and a slight bronzing of the skin indicates hyperfunction of the adrenals.

One of the characteristic features of thyroid deficiency is sensitiveness to cold. The actual body temperature is reduced in some cases as much as three and a half degrees.

The convulsions in parathyroid deficiency are almost always symmetrical on both sides of the body.

Double vision or blurring in pituitary enlargement signifies that the enlargement is beginning to impinge upon the optic nerve.

Hyperactivity of the parathyroids is characterized by weakness and pain in the bones. The bones become soft and deformities of the skeleton occur. In an advanced stage of the disease the chest may bulge and the legs bend outward giving rise to a typical "frog-leg" appearance.

Eosinophilia, high blood uric acid, abnormal galactose and increased urine volume are among the valuable signs of pituitary deficiency.

Stilbestrol Therapy

EDMUND E. BEARD, M.D. and PHILLIP L. ROSSMAN, M.D.

THE synthetically produced estrogen, diethylstilbestrol, announced by Dodds, Goldberg, Lawson and Robinson[1] in 1938, available commercially in Canada and other countries for some time, is soon to be released by the Federal Drug Administration for general use in the United States.

Endocrinological literature of the past two years has contained many discussions of the effect of this substance in animal experimentation. In essence these seem to indicate that serious toxic effects can be produced in animals by large doses of the drug, just as with comparably large doses of natural estrogens, and that the other effects of this new estrogen are the same as those of the estrogenic hormones. Reports of clinical use of stilbestrol have been widely divergent in their opinions of its "toxicity", undesirable reactions ranging in incidence from 0 to 80 per cent, those severe enough to cause interruption of treatment from 1.1 to 14.5 per cent.[2] We know of no instance wherein it was established that serious injury had been produced in the human by this drug.

A report of 100 additional cases may help establish the average incidence of "toxic" reactions. The recent increase in general interest in stilbestrol therapy makes such a report timely. In the course of treating this series of patients observations have been made which we have not seen mentioned in the literature.

MATERIAL

This study deals with observations made upon 100 cases treated orally with stilbestrol in the Endocrine Clinics of City (33 cases) and St. Luke's (27 cases) Hospitals of Cleveland, and in the private practice of one of us (E. E. B., 40 cases). Some 25 other cases started on similar treatment are not included because of flagrantly irregular attendance or too short a period of treatment. Four of the 100 cases were on regular treatment for one year or longer, 72 for three to ten months, and ten (including the six "toxic" cases in whom treatment was discontinued) for less than two months. Dosage of the drug varied from 0.1 mg. to 3.0 mg. per day, total amount given each patient from 8.0 mg. to 410 mg. Ages of the patients were from 19 to 78 years. Eighty-five cases were of the menopausal syndrome, artifically induced in 30, seven of whom had had bilateral oophorectomy. Of the remaining 15 patients 12 were of the younger age group and were treated cyclically for amenorrhea, hypomenorrhea, hypertrichosis, or some combination of these. One post-menopausal patient was treated for leukoplakia of the vulva with severe pruritus, one for unexplained dizziness, and one for asthma.

The Authors

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METHOD

The patients were seen every one to four weeks and questioned in detail as to symptoms, including gastro-intestinal disturbance. They were studied objectively by general physical examination and vaginal smear on admission, and by breast examination, vaginal examination, and vaginal smear on each subsequent visit. Other examination was done as indicated, as blood pressure readings in those with hypertension. Urinary hormone assays and endometrial biopsies were done on a few.

RESULTS

Untoward effects			
	Total	Clinic	Private
Number treated	100	60	40
No untoward symptoms	79%	75%	85%
Untoward symptoms	21%	25%	15%
Discontinued treatment	6%	6.6%	5%

Untoward symptoms, including those severe enough to cause discontinuance of treatment, were confined to the gastro-intestinal tract, and were nausea, vomiting, abdominal discomfort and diarrhea. We saw nothing which would lead us to disagree with the idea that the untoward

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symptoms caused by this drug are due simply to irritation of the gastro-intestinal tract. "Toxic" effects which led to the stopping of treatment were clear-cut in four cases. Of the two others so tabulated, one woman on each of two attempts took the drug in full dosage for two weeks before complaining of abdominal discomfort, and the other has been able to take as much as 0.5 mg. a day for several weeks at a time without trouble. The number per cent reporting untoward symptoms was greater in the dispensary than among the private patients. Among clinic patients was one who at first claimed that she fainted each time she took a dose of stilbestrol, and two who reported nausea not only after this estrogen but also after small doses of theelin given parenterally. It is difficult to evaluate such reports. It is true, however, that patients in the clinic were more frequently started on moderately large doses, whereas private patients were given a trial period on low dosage. There seemed to be a definite advantage in beginning with small doses of the drug, in that untoward symptoms were less frequent and severe than when large doses were used from the first. Time of day when the medicament was given and relation to meals made little difference. There was only one patient in this series who seemed to be able to tolerate enteric coated tablets better than uncoated ones.

Menopausal Syndrome—

Number treated	85	100%
Relieved	78	92%
Unrelieved	2	2%
"Toxic"	5	6%

Of the two patients unrelieved of menopausal symptoms one may have had insufficient dosage and the other had received no relief when treated with estradiol. She was receiving disability insurance. Where treatment must be continued over long periods of time, as it must in the majority of cases of the menopausal syndrome, we are of the opinion that better results are obtained by intermittent than by continuous administration of estrogen, and we have adopted the procedure of giving a vacation of a week or more every four to six weeks. During suspension of treatment there is often a recurrence in mild form of some of the patient's symptoms, but with resumption of treatment these are soon suppressed. This method seems to some extent to prevent the development of decreased sensitivity, a phenomenon mentioned by Pratt[3] and observed by us. This tolerance develops as readily after long use of the estrogenic hormones as after stilbestrol and is not specific for the estrogen which induced it. It disappears when estrogen is discontinued for a short time.

Hypertension—Nine cases with hypertension associated with menopausal syndrome symptoms showed no significant change in blood pressure during the period of treatment.

Diabetes—Three patients with diabetes mellitus (two with climacteric symptoms and the other, 21 years old, with very irregular periods and mental depression) showed little, if any, decrease in their insulin requirements though much benefited in regard to their other symptoms. The largest dose taken by any of these was 1.0 mg. per day.

Hypertrichosis—There were three patients with hypertrichosis and irregular periods. One could not tolerate stilbestrol except in small dosage. The other two had much more regular periods when treated cyclically with the drug. The hypertrichosis is so far unchanged.

Primary Amenorrhea—One 30-year-old patient with primary amenorrhea did not establish spontaneous menstrual function on stilbestrol. Another, aged 20 years, of hypogonadal habitus, had preliminary gonadotropic hormone therapy and then with cyclic stilbestrol attained spontaneous menses, which continued for three months after the estrogen was discontinued.

Secondary Amenorrhea—Three patients with secondary amenorrhea, ages from 20 to 29 years, re-established spontaneous menses after stilbestrol was given cyclically.

Hyperthyroidism—One woman with post-menopausal hyperthyroidism has been given a total of 301 mg. of stilbestrol (from 1.0 to 3.0 mg. per day) in six months time, without other treatment. She has gained 13 pounds in weight and is clinically improved, though her blood cholesterol and metabolic rate levels are no nearer normal than they were before treatment.

Migraine—Five patients with migraine and climacteric symptoms (in one of whom the migraine had appeared only subsequent to hysterectomy) were in every case greatly relieved of all symptoms when treated with stilbestrol.

Allergic States—One patient with chronic urticaria and climacteric symptoms, both of 18 months duration, was completely relieved of the urticaria when her other symptoms were suppressed. One woman with bronchial asthma, appearing for the first time following hysterectomy in 1937, has been much relieved of the asthma. One case of bronchial asthma, appearing for the first time following thyroidectomy in a woman of 76 years, was greatly benefited by stilbestrol. One case of bronchial asthma which had been present for many years was little, if any, benefited when treated by stilbestrol for supervening climacteric symptoms.

Endometriosis—A 24-year-old girl had had bilateral oophorectomy for "chocolate cyst" and subsequently had severe hot flushes and exhaustion. Stilbestrol gave her relief of these symptoms, but even in small doses seemed to induce pain in the right lower abdominal quadrant. This was taken as evidence that ectopic endometrial tissue was being stimulated, and estrogen therapy was discontinued.

Vaginal Smears—These were found to be of some help in adjusting dosage, just as in treatment with other estrogens. Our aim was to use as small a dose of drug as possible producing relief of symptoms. In some cases such a result could be obtained without great change in the vaginal smear, but whenever relief was incomplete dosage was increased in an attempt to produce a smear of full estrous type.

Breast Changes—Twenty-eight cases in this series had some breast change (darkening of the areolae, tenderness, or enlargement). All those women younger than 35 years of age responded in this way. The 76-year-old woman did not do so, though she had repeated uterine bleeding with a total dose of 300 mg. of stilbestrol. Uterine bleeding occurred in eight women in whom breast change was not reported or noted. There was wide variation in size of dose required to produce breast change in different patients.

Uterine Bleeding—Of the 27 post-menopausal women with uteri, who had had no bleeding for six months or more, 11 were made to bleed, none severely. This occurred on continuous treatment at levels varying from 0.25 mg. to 3.0 mg. per day, as well as after withdrawal of the drug. The oldest patient in the group had uterine bleeding on six different occasions. The smallest dose of stilbestrol to produce bleeding was 35 mg., given at the rate of 0.5 mg. per day. This was in a 49-year-old woman who had had no menses for nine years. In view of the important question of the possibility of inducing malignant change in the uterus by estrogenic therapy one case was of especial interest. A colored woman, 50 years old, had had no period for two years. She complained of frequent hot flushes, sweating and headaches. Vaginal smear showed very little estrogen effect. An endometrial biopsy was attempted and stilbestrol was begun. The biopsy material was found to include only cervical tissue. Estrogen was continued and later another biopsy was done. This showed adenocarcinoma and the uterus was removed. The patient had been given a total of only 10.4 mg. of stilbestrol in less than three months of treatment; she was one of the most lightly treated cases in the series. It is incredible that this malignant growth could have been produced by so little estrogen.

COMPARISON OF POTENCY

There were 17 cases in which other estrogen was used before or after stilbestrol therapy, and in these some comparison of effective dose levels could be made. Such comparison is certain to be extremely inaccurate, there being no way to allow for differences in requirement at different times, effect of previous medication, varying environmental influences, variation in amount of ovarian activity in the spontaneous menopause group, and possibly other factors. Exact matching of degree of improvement on the two regimes was impossible, but comparisons were made by means of vaginal smears and by the accounts of subjective change given by the patients. The number of international units of estrone or estradiol* (parenteral) equivalent to 1.0 mg. of stilbestrol (oral) ranged from 1430 to 11,430, the average being 5750. In six of the patients who had had bilateral oophorectomy the equivalents varied from 1710 to 8000, the average being 4720. Since 10,000 international units are equal to 1.0 mg. of estrone, these findings indicate that in the human 1.0 mg. of stilbestrol given orally produces about the same effect as 0.5 mg. of estrone parenterally. Sondern and Sealy[4] state "By the oral route in mice stilbestrol is one-fourth as effective as estrone subcutaneously. In rats, however, the effectiveness is approximately the same when compared in this manner."

SUMMARY

One hundred women with various estrogen deficiency states were treated with stilbestrol by mouth. Observations made in the course of treatment of these patients are discussed.

The drug is a highly potent and clinically very useful estrogen.

Untoward symptoms following ingestion of the drug occurred in 21 instances (21 per cent); such symptoms were severe enough to cause interruption of treatment in six instances (6 per cent).

A rough comparison of the potency of stilbestrol with that of estrone and estradiol indicates that in the human 1.0 mg. of stilbestrol (oral) is equivalent to about 0.5 mg. of estrone (parenteral).

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* One rat unit of estradiol considered equivalent to 10 international units of estrone.

Some of the preliminary work-up of the cases from St. Luke's Hospital was done by Captain Paul Myers, M.D., now on active service with the United States Army.

The stilbestrol used in this study was supplied by the Sharp and Dohme Company through the courtesy of Drs. J. L. McCartney and John Henderson, and by the Eli Lilly Company through the kindness of Dr. G. C. Hines.

A Consideration of Diseases of the Blood Vessels In Diabetes Mellitus

M. H. ROSENBLUM, M.D.

IT has long been recognized that the arteriosclerotic process is a common finding in patients with diabetes mellitus. Wilder[1] says that the consensus is that "diabetes hastens the development of arteriosclerosis and speeds its course". Norris[2] stated that arteriosclerosis may be an involutional change, an accompaniment of age, or that it may be mechanical or toxic in origin. He felt that ultimately it will be shown "to be the result of chemical changes associated with the bodily metabolism which exert their effects upon the individual visceral, vascular, and somatic cells, either directly or through mediation of the ductless glands". This statement is exemplified in diabetes mellitus. However, the modus operandi is still a controversial matter.

The patient with diabetes who lives longer is more likely now than ever before to become a victim of arteriosclerosis. Joslin[3] believes that the most important reason for the increase in arteriosclerosis as a cause of death, is the decreasing mortality from coma. The following data taken from Joslin[4] shows that the rise in the incidence of deaths from diabetes coincides with the incidence of arteriosclerosis during the various eras of diabetic treatment. In the Naunyn period beginning in 1894 and ending in June, 1914, the percentage of total deaths from diabetes due to arteriosclerosis was 18 per cent. In the Allen era beginning with June, 1914, to August, 1922, the per cent of total diabetic deaths due to arteriosclerosis was 25, while in the Banting era up to March, 1935, there was a gradual rise of arteriosclerotic deaths, from 42 per cent to 56 per cent in March, 1935. At the same time, there was a corresponding drop in the percentage of total deaths from diabetes due to coma. The coma deaths which stood at 64 per cent in the Naunyn period dropped to 42 per cent in the Allen era and finally in the Banting period dropped to a low of 6 per cent. Joslin's figures also show that the average age of death from diabetes has increased from 44.8 years in the Naunyn period to an average age at death in the Banting period of 62.8 years.

The additional 18 years of life for the diabetic has brought him into the arteriosclerotic period. The diabetic in this day is subjected not only to the metabolic and hormonal factors whatever they may be, but he is likewise subjected to the gradual deterioration of elastic tissue of the arteries incidental to the ageing process. Insulin spares diabetics from death by coma and carries them into an age where they may be permitted to die of arteriosclerosis.

The Author

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The word, atherosclerosis, is applied here to designate the form of arteriosclerosis which is commonly found in the aorta. This term was proposed by Marchand in 1904. It is derived from the Greek word meaning "mush" or "porridge". Aschoff[5] credits Virchow with being the first, about 85 years ago, to describe the histological picture of what is now termed atherosclerosis. Leary[6] holds that atherosclerosis is the clinically important form of arteriosclerosis. Leary believes that the frequency, the rate of its development, and the possible causes of atherosclerosis in diabetes mellitus, will ultimately be found to be a disturbance or alteration of the cholesterol metabolism.

Our knowledge of cholesterol metabolism, however, is incomplete. There is still much to be learned of the actual physiological significance of cholesterol. It is partly derived from ingested animal food but the greater portion of it is synthesized within the organism. During pregnancy the blood cholesterol is increased.[7] It is said that there is a periodic fluctuation of the cholesterol content of the blood during the menstrual cycle, and that there is a decrease in blood cholesterol "almost invariably", just before or during the menstrual period.[7] This temporary lowering of the blood cholesterol may be preceded or followed by a cholesterol level which is higher than usual for that individual.

It will be noted later in this discussion that there is a greater incidence of coronary artery disease in women with diabetes than in women who are not diabetic. May it not be that the disturbed cholesterol metabolism in diabetic women, the altered cholesterol metabolism during menstrual cycles, and pregnancies in these same

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women, all together being factors tending towards coronary artery disease?

EXPERIMENTAL ATHEROSCLEROSIS

Anitschkow and Chalatow[8] were first to produce experimental atherosclerosis in rabbits by feeding them pure cholesterol dissolved in vegetable oil. Cats and dogs have been experimentally fed with cholesterol without producing atherosclerotic changes as happens in the case of cholesterol feeding to rabbits. This, Anitschkow explains is due to the fact that while carnivorous animals do naturally ingest a large amount of cholesterol in their food yet they excrete it easily from the body. He quotes Kube and Ssolowjew who believe that the early lipoid spots found in the aortas of young infants are due to a labile cholesterol metabolism, and that the cholesterol contained in milk is not easily excreted. These atheromatous areas are known in the course of time to disappear entirely.

The atherosclerosis produced experimentally, in rabbits, compares morphologically with that found in humans.[8,9] Particularly so, if the rabbits are given food such as milk, that is not too rich in cholesterol, over a relatively long period of time—two or two and a half years.

Leary[10] recently corroborated the experimental evidence of the older workers and he is in accord with them in regard to the similarity between the atherosclerosis produced experimentally in rabbits and atherosclerosis found in humans.

Nevertheless, there are some[11] who cast doubt upon the part which cholesterol plays in human atherosclerosis. Duff[11b] in 1935 has written an excellent and complete review on the relation of cholesterol to atherosclerosis. He has applied the term "experimental cholesterol arteriosclerosis" to the changes of the arteries of rabbits resulting from the feeding of cholesterol or foods rich in cholesterol. The results he obtained in cholesterol feeding in rabbits did not materially differ from those obtained by other investigators. Duff believes, however, that there is no evidence to prove any similarity between human arteriosclerosis and "experimental cholesterol arteriosclerosis".

We have not heard the last word regarding the significance of cholesterol in its relation to atherosclerosis in diabetes. The diabetic patient will have to be the "rabbit" in deciding the problem.

There are undoubtedly many diabetic patients who have not had the advantage or will not take the advantage of ideal diabetic treatment. These patients will throw more light, before or when they die, on the arteriosclerotic problem. The ideally treated patients will serve as the control group.

MATERIAL

The material for this study were patients with diabetes mellitus in the wards of the Presbyterian Hospital, Pittsburgh, Pennsylvania. Eighty-four cases were thus studied. The additional 150 cases were chosen from the hospital records.

The period of time involved in this group of cases was from November 3, 1930 to October 24, 1940. From November 3, 1930 to January 24, 1934, 18 case records of patients with diabetes mellitus who died during their hospital stay, were studied. These 18 deaths occurred in a total of 268 cases of diabetes.

There were 143 female diabetic patients and 91 male diabetics. In the fifth and sixth decades there were 39 males or 42.7 per cent of the total number of males, and in the same decades there were 101 females or slightly over 70 per cent of the total number of females.

BLOOD PRESSURE IN DIABETES

Most authors[12] agree that hypertension is found frequently in patients with diabetes mellitus. Hypercholesterolemia is not a factor[13] in the production of the increased arterial tension. Klotz[14] said that there is no causal relationship between high blood pressure and arteriosclerosis. He further stated that although high blood pressure and arteriosclerosis are frequently found together the degree of hypertension does not parallel the grade of arteriosclerosis.

Musser and Wright[12b] believe that there is a relationship between hypertension, obesity and hyperglycemia. They favor the thought that if there is one factor responsible for the combination of hypertension, obesity and hyperglycemia it is the obesity. Body build has been brought into the problem of hypertension and its relation to obesity by Robinson and Brucer.[15] They conclude that hypertension is a part of the "endowment" of broad-chested persons and that although obesity is part of the same pattern it is not the influencing factor in hypertension. Conversely Barach[16] observed that hyposthenic individuals usually have low blood pressures. He states also that it is unusual to find a broad-chested person with a low arterial pressure.

Table I gives the average blood pressure in each decade of 229 diabetic patients, 86 of whom were males and 143 females. The blood pressures of five patients who were in coma were not included in this part of the study. The weight, the duration of diabetes and the record of the type

TABLE I.

Average Blood Pressure—229 Cases Diabetes Mellitus

	Male			Female		
Age in decades	No. of Patients	Systolic	Diastolic	No. of Patients	Systolic	Diastolic
10-19	6	125	73	4	118	75
20-29	8	108	73	3	117	82
30-39	6	116	78	7	125	82
40-49	22	126	80	18	138	82
50-59	19	145	88	60	151	86
60-69	20	151	86	41	165	92
70-79	5	148	83	7	167	88
80-89	...	...	...	3	152	85
Total	86			143		

of build were not available in every case and therefore no attempt was made to correlate these with the blood pressure.

The males have normal average blood pressures according to their age groups. Beginning with the fourth decade the females, however, show appreciably higher systolic blood pressures than the males in comparable decades. There is no great difference in the diastolic pressures between the male and female groups.

CORONARY DISEASE IN DIABETES

Levine and Brown[17] said that diabetes is next in importance to a previously existing hypertension as an etiological factor in the production of coronary thrombosis. In their series of 145 cases, glycosuria was found in 34. In eight of these cases the glycosuria was transient.

Raab and Rabinowitz[18] quote several investigators who also found a glycosuria and a hyperglycemia in patients with coronary occlusion who previously had no sugar in the urine and normal blood sugar levels. Various theories have been offered to explain the transitory glycosuria and hyperglycemia in the early stage of coronary occlusion. None of these give convincing proof as to the physiologic-pathological mechanism involved.

SEX AND AGE INCIDENCE OF CORONARY DISEASE IN DIABETES

There were 23 patients with evidence of coronary artery disease out of the group of 216 diabetic patients studied or an incidence of 10.6 per cent. Five of them were males and 18 females. The average age of the males was 51.4 years and of the females 59 years. The average age for the group of 23 patients was 57.3 years.

In contrast to the sex incidence of coronary disease in non-diabetics, the female diabetic is as likely to have coronary disease as the male diabetic patient. In the general population coronary thrombosis is from three to seven times more common in males,[19] than in females. Why this is so, is not known. Root and Grabiel[20] speak of the "leveling influence" of diabetes as a factor in equalizing the incidence of coronary disease in the sexes. The evening-up of the sex ratio may be due to the added strain of periodic insults of increases in cholesterol levels in the blood during menstrual cycles and pregnancies in diabetic women.

The onset of coronary disease is not influenced by the age of the diabetic patient or the severity of the disease.[21] The duration of the diabetes is the important factor. This is borne out by the frequency of coronary disease in young adults who have had diabetes of long duration,[22] who were between the ages of 22 years and 33 years and who have died with coronary occlusion. Root and Sharkey[21] found that angina pectoris is more common in patients who have had diabetes 10 years or more. They have observed that the frequency of angina pectoris is trebled in patients who have had diabetes over 20 years.

A comparison of the incidence of coronary artery disease in general autopsy material with autopsies of diabetic patients gives varied but striking figures. In a study of 6,548 autopsies of patients dying from all causes from 1896 to 1930 Meakins and Eakin[23] found coronary occlusion in 62 cases or a ratio of 1:105.6. The study by Sutton and Brandes[24] of gross coronary artery sclerosis in 3,040 autopsies at the Cook County Hospital in Chicago gave an incidence of 11.1 per cent. Willius[25] and his associates reviewed the incidence and degree of sclerosis of the coronary arteries in 5,060 consecutive postmortems performed at the Mayo Clinic. They found definite evidence of coronary artery sclerosis in 1,431 cases or an incidence of 28.2 per cent. These findings show that there is a surprisingly high frequency ratio of autopsies with pathological changes of the coronary arteries. However, the incidence of these changes in the coronary arteries of autopsied diabetic patients are considerably more pronounced.

Warren[26] found 72 patients with infarctions plus 10 having coronary occlusions without infarction in a group of 440 diabetic autopsies. When this series is contrasted with the 62 cases of coronary occlusions found in 6,548 autopsies as reported by Meakins and Eakin[23] the great frequency of coronary artery disease in diabetes is well illustrated.

PERIPHERAL ARTERIAL SCLEROSIS IN DIABETES

There were 19 patients with advanced peripheral arterial disease as evidenced by gangrene, three of whom were males and 16 females. These patients represented 12 per cent of the total of 234 diabetic patients studied.

The youngest was 36 years old and the oldest 84 years; the average age being 65.2 years.

McKittrick[27] reviewed a group of patients with gangrene of the extremities and found the average age of onset of gangrene in diabetes to be 66.5 years. Joslin[28] quotes several authors who give an incidence of gangrene in diabetes ranging from 3.1 per cent to 13 per cent.

The occlusion of peripheral arteries resulting in gangrene in the diabetic patient is typically a slow process according to Warren.[29] The lumen of the peripheral vessel is gradually narrowed by a thickening of the intima. The fact that the process is slow often gives the extremity sufficient time to develop a collateral circulation. This makeshift circulation can be easily broken down by trauma or infection resulting in gangrene.

The physical mechanism responsible for the greater increase of lipoids and particularly cholesterol in the intima of diabetic vessels is best given by Warren. He takes the Virchow-Aschoff imbibition theory and adds the hypothesis of changes in osmotic pressure due to fluctuations of blood sugar concentration. With an increase of the permeability of the "intimal ground substance" the lipoid material containing cholesterol esters carried by the plasma infiltrates and is partly deposited in the intimal structure. The coalescence of the accumulated lipoid material form placques of atheroma. Later calcium and phosphorus may be deposited into the more permeable intimal structure producing atherosclerotic areas.

INSULIN AND CORONARY DISEASE

It may not be out of place at this time to caution against the injudicious or indiscriminate use of insulin in diabetic patients who have symptoms of coronary disease. Caution should also be observed in giving insulin the first time to individuals with a diabetes of long duration, though they do not manifest symptoms of coronary disease. Hepburn and Graham[30] in an electrocardiographic study of 123 cases of diabetes observed that significant changes of the electrocardiogram were present in about 45 per cent of their cases. A poorly nourished heart because of narrowed arteries may be further insulted by reducing the available sugar in the blood by improper amounts of insulin.

Parsonett and Hyman[31a] have observed that it is not necessary for the blood sugar to fall to hypoglycemic shock levels to induce anginal pain. They say that suddenly lowering the blood sugar from the level to which the heart muscle has been adjusted is sufficient to initiate the pain. On the other hand, Collens[31b] and his collaborators believe that only hypoglycemic attacks are dangerous to the heart with coronary sclerosis.

None the less, proper dosage of insulin, avoiding excess, can be used in elderly diabetics or in diabetics having symptoms of coronary disease. With the proper use of insulin the general nutrition of the diabetic patient will be maintained, and at the same time enhance the nutrition of the heart muscle.

SUMMARY

1. The use of insulin and better diets are prolonging the life of the diabetic. His arteries are being acted upon not only by the forces incident to the aging process but also by the physicochemical changes of diabetes.

2. Experimental and clinical evidence for the connection between a disturbed cholesterol metabolism and the pathogenesis of atherosclerosis in diabetes was discussed.

3. Hypertension is a frequent finding in diabetes. Systolic blood pressures were found to be elevated in the majority of diabetic females studied while the systolic blood pressures of males with diabetes were around normal levels.

4. Coronary disease is common in diabetes mellitus. Women having diabetes are as likely to have coronary disease as diabetic men. In nondiabetics coronary disease is three to seven times more common in men. The possible added strain of periodic disturbances in cholesterol metabolism during menses and pregnancies to the already burdened cholesterol metabolism in diabetic women may be a factor in equalizing the ratio.

5. There were 23 patients with evidence of coronary disease out of 214 patients studied. The average age being 57.3 years.

6. Gangrene of the extremities occurred in 19 out of 234 diabetic patients. The average age of this group showing gangrene was 65.2 years.

7. Coronary artery disease occurred about eight years earlier than gangrene of the extremities.

8. The use of insulin in diabetics with coronary disease was discussed. Properly used insulin will help the general nutrition and should thus also help the nutrition of the myocardium.

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Additional references, omitted because of lack of space, will appear in reprints.

Farmacias, Apothekes and Chemist Shops

HOWARD DITTRICK, M.D.

THE dawn of pharmacy, like that of medicine and religion, is as old as the first cry of pain in the jungle. Injury and disease urged their victims to grope blindly in search of relief until at long last, patient in trial and beset by error, the means employed gradually made sense. It was relatively late in man's development, when pagan religion took form, that they attributed their ills to displeasure of the gods. Their priests in the temples through dreams and religious rites sought to drive out devils believed responsible for infirmity or to placate the gods in hope of relief. Meanwhile old women and patriarchs of families observed successful results of certain procedures of treatment and of various available crude drugs. Accumulated experience bore fruit. The ills of those who flocked to the temples were finally recorded, classified, the records sifted and these actual case histories formed the basis of early medicine. Thus it was that medicine, pharmacy and religion had a common root in that first cry of pain in the jungle.

Though body and soul are not two entirely separate entities, the overlapping fields of medicine, pharmacy and religion caused endless conflict. The early surgeon derived much from the barber surgeon's craft, and the physician from the apothecary, and both from learned monks. There existed keen, often bitter, rivalry among them until definition of their conflicting practices resulted in fruitful cooperation. Even today the patient would profit if physicians and pharmacists consulted more frequently behind the counter.

Personally I have found deep pleasure in a long habit of fraternizing with pharmacists. Ever since those first early years of practice, when prescription writing was a fearful and wonderful art to be checked frankly and gratefully with the wise old corner druggist, down to the present time, the mutual relations of medicine and pharmacy have held my interest.

OLD EUROPEAN PHARMACIES

Of late years it has been my privilege to visit unusual European pharmacies, even old herb gardens, along, and somewhat off, the beaten path of travel. With the present all out destruction in Europe, many of them live today only in the memory of travellers who knew them even briefly, and who survive to remember.

The Orto Botanico in Padua, oldest in Europe (1545), tells some of its fragrant story in tenderly nursed trees planted by honored personages. It served the university, which was a world center of learning through centuries, an eyefull of delight just yesterday. The Hans Sloane garden in Chelsea was presented to the Society of Apothecaries on condition of a certain number of new plant species being included each year in its gardens. Has it survived the war?

Herbals were compiled for accurate distinction of plants either by meticulous illustration, or by preservation of the actual dried specimen. Browsing in such shops as Goldschmidt of London, Thiebaud of Paris, or Luigi of Florence, one found these precious volumes. In a little shop in Florence, a veritable hole in the wall back of the Cathedral, we pored over such an herbal, too dear for acquisition, with whole dried plants in excellent preservation. We did buy a dose book.

HERB GARDENS

Ancestors back of the herb gardens were those courtyard gardens of the religious orders, where monks and nuns grew simples for their own cloistered ones and for neighborhood needs. A vestige of such plantings remained in the courtyard garden of an asylum in San Remy in Provence where nuns worked with mental patients. In such an oasis of complete serenity, in one story cottages buried in flowers and without any evidence of restraint, lived these patients whom the world called mad. Beyond the gates was the battlefield where Caesar defeated his most worthy Gallic foe, Vercingetorix, and dragged in triumph at his chariot wheels in Rome. These religious orders were for centuries the only hospitals, monks and nuns the only physicians, pharmacists and nurses in the outposts of civilization.

There was great excitement in Seville when American voyages of Columbus opened to botanists new species of plants and herbs. Nicholas Monardes of Seville made extensive study of this material. In Madrid in 1935 we heard a report of the first book compiled on American soil, an herbal written by Spanish

The Author

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Note—One of a series of medical literary essays written at the request of the Editor.

priests and subsequently buried in the Vatican library's wealth of rare manuscripts.

Rooted also in that old ecclesiastical tradition were several pharmacies we visited. The Ospedale San Spirito in Rome still treasures the macerator in which the first Jesuit's bark, or cinchona, was prepared for European administration. The farmacia was dismantled, when we visited it, only the long ranges of brick firepots remained. But its mammoth bronze and stone mortars were set about the courtyards and its colorful old majolica jars ornament the adjacent Biblioteca Lancisiana, whose walls, incidentally, are lined with priceless incunabula. Frescoes blackened with age, decorating a vaulted hospital ward in San Spirito, depict dispensing of cinchona bark by a cardinal. Roman marshes suggest the need.

HOSPITAL PHARMACIES

In the hospital of St. Jean at Bruges, nuns still preside over a convent pharmacy furnished with a collector's dream of jars and mortars, set in a carved oak interior. Paintings by Memling, a Flemish artist, who was a psychopathic patient there, form a priceless addition to the wood carvings of doctors and nuns caring for the sick. There are many brass, stone and marble mortars, with brass bound wooden kegs and brown crockery utility jugs, furnished with metal caps and handles, quite different from any we had seen. How much of Bruges has been saved from devastation?

In Hotel Dieu in Rouen, a hospital since the middle ages, a vaulted basement is devoted to making syrups and stock mixtures required by a thousand bed hospital. Indistinct in a twilight gloom, a group of men in faded blue denim smocks and caps, smoking quaint pipes, work over long brick ranges, where copper vessels reminiscent of the retorts of alchemists gleam in the firelight. Burnished copper utensils hang in ordered rows on the walls, or simmer over the firepots. I should have used the past tense. Probably it is all gone. Rouen was burned to the ground.

The Ospedale Tavera, Spain, outside the walls of Toledo, housed a historic 'botica' which preserved intact all the material and equipment of a medieval hospital pharmacy. A small decorated cabinet of drawers held poisons behind specially locked doors. Most picturesque was the effect of jars of varied sizes in ordered rows. The majolica jars in blue decoration and those tall slender Moorish jars of metallic luster in Arabic design, were set off by jars and flasks of Spanish glass, the whole arranged in simply carved dark oak shelving designed to house them. Oddly enough, there was a Moorish flavor about the decorative effect of this Christian pharmacy designed to replace hospitals and pharmacies of the expelled Moors, destroyed in religious ardor of conquering Christianity. It was the most medieval pharmacy we saw. Civil war in Spain may have destroyed it during the siege of the Alcazar and the widespread destruction of religious property holdings.

Frequently the pharmacy—and as frequently the operating rooms—are the only modernized parts of the structure of medieval hospitals. In San Juan de Dios in Granada built around four spacious patios wainscoated with incredibly old decorated tiles, hospital equipment is almost as old, excepting only a good pharmacy, and a modern operating pavilion erected in one of the patios. There is a medical school in connection. The hospital reflects mankind's poverty and misery, but high above the city lies the Alhambra a gem of luxury, a dream of beauty unalloyed. A moonlight evening in the courtyards of the Alhambra is an ineffacable memory of perfumed jasmine and orange flowers, dripping singing fountains and nightingale song. In the city are music, laughter, clicking castanets and vender's calls of lottery tickets, fresh water, and potato chips. Below the Alhambra lies the gypsy quarter, colorful, gay, dirty, thieving, raucous, a neighborhood of cave dwellings, a class of parasites and beggars. In Spain beggars are turned away politely—"Vaya con Dios"—go with God. The habitual generosity of the poor Spanish peasant to his poorer brother is amazing.

SPANISH PHARMACIES

Perhaps no other Spanish city has the charm of Seville. Here the blend of Spanish and Moorish peoples results in the Andalusian strain of music, poetry, dancing. The streets are gay with flowering vines, caged birds, exquisite fountains in gardens behind wrought iron grills. One asks only to lose himself in the tangle of intimate streets, almost hoping to stay lost in its soft, timeless beauty.

In our tireless walks in foreign cities my wife would suddenly miss me but was never at a loss to find me in the nearest pharmacy. I had an absent-minded way of slipping inside to visit the owner. At first glance many shops were uninviting and without attractive windows. But opposite the open door a glimpse of the interior drew me irresistibly within. In Spain there are two sorts, the conservative pharmacies and drug stores handling all manner of goods. The latter have incredibly modernistic shops. The more professional farmacia has a prescription counter, a scale for weighing patients, and benches as in a consulting room in a physician's office.

This latter type of pharmacy is often adorned with handsome old jars of individual style and reflects generations of pharmacy in one location. Thus while walking along a street in Granada close to the cathedral where Ferdinand and Isabella lie buried, I almost passed a farmacia showing unusual jars of Spanish majolica. Each jar was decorated in color with the flower, leaf and root of the drug as well as its name. I remember best the digitalis jar. But the owner admired it too much to part with it. In a room back of the display jars was a complete equipment for modern dispensing.

In a London chemist shop I found globular black glass jars with labels in red and gold, lighting up the interior with a rich warm color. Rather hesitatingly I asked if any might be purchased, but as heirlooms in the family for many generations he could not part with a single one.

Then there was an apotheker in Vienna, near the monument dedicated to relief from the pest. We had seen his products in some of the Italian clinics. We learned later that they were sold widely in Europe as well as in America. With tears in his eyes he told us of a treasured bronze mortar which had been requisitioned in the last war and melted down for cannon. On his shelves were many wood jars, finished in natural color. One of these he presented me, obviously not in frequent use. I did not know what the label Powdered Baptist Stone denoted. After many inquiries I finally learned from Prof. Tricot-Royer of Antwerp that it was powdered amethyst, one of the precious stones used in therapeutics. This jar found an appropriate place in our Museum, beside a blue Delft jar, dated 1673, and labelled Lapis Lazuli.

If you are fortunate enough some day to enjoy a little leisure time, let me suggest that you read of the court functions, the elaborate preparation, the careful sealing, and the widespread distribution of that marvelous remedy of antiquity, theriac. We were able to acquire a theriac jar in Rouen and, in Madrid, a pharmacist presented us with a couple of drams of this preparation from un unbroken package which had been made in 1858. It is still soft and pliable and in the vernacular of the profession—good pharmacy.

In Italy the sign of the apothecary's shop is a serpent feeding from the bowl of an urn. We entered such a farmacia in Naples with a letter of introduction. Two assistants in white were waiting on customers. Only containers and apparatus used in preparation of remedies were to be seen. Patients awaiting their prescriptions were seated. The pharmacist led us to an upper room where he was accustomed to hold consultations. Evidently he made blood examinations and carried out other laboratory tests. We gathered that while he was not licensed to practice medicine, his professional prerogatives were much beyond those of our own pharmacists.

Folklore's contribution to medicine and pharmacy was brought to mind in the drug booth of the Turkish bazaar in Sarajevo. You will remember Sarajevo as the Bosnian city where assassination of the Austrian archduke started World War I. Its name meant the camping place for caravans. The bazaar clustered about the 16th century stone inn, which sheltered caravans from the Orient, and in the shadow of a great mosque, under huge old poplars. The Moslem craftsmen squat in tiny booths to sell their wares. In the drug booth I met Mr. Papo, descendant of generations of Jewish drug venders who have kept this shop, the Jews being refugees of a pre-Columbian Spanish expulsion. With the drugs he sells, he imparts information accumulated through these generations of service. Without any common language but my rusty classical Greek, he learned of our Museum of medical history and with a fine gesture donated a wooden container from his display, with a dried pomegranate and a bit of gentian root. In a container made of green bark, doubled on itself and fastened with stripped twigs, a cupful of resin was marketed. This also he presented, refusing any payment. We wonder what has been his fate in the recent incendiary bombing of Sarajevo.

A few blocks away on the Cathedral square we formed a delightful friendship with a modern pharmacist whom we visited several times. Like all Jugoslavs, who have either a relative or friend in the United States, when he learned that we came from America he was very anxious to show us some consideration. While his assistant was compounding some cold capsules for us, he ushered us into a cozy rear room to drink a cup of black Turkish coffee. This characteristic beverage of the Balkans is a thick syrup of coffee grounds. Our host exhibited with considerable pride some treasured Turkish carpets, arms and art objects, and a collection of about one hundred varieties of cacti. He insisted that we visit him again when we returned to Sarajevo two weeks later. We did pay him a return visit and he took us for a stroll about the city in the moonlight. The veiled women, the primitive eating places with whole lambs and chickens cooking on a spit before an open charcoal fire, the surrounding mountains, the cool, rippling stream of water, the peasant costumes, the varied fezzes distinguishing youths, ordinary Moslems, priests, and pilgrims who had visited Mecca, the mosques, the minarets and poplars, all this formed a typical scene of the Near East. In this hour of trial we remember with gratitude and very deep concern our hospitable pharmacist in Sarajevo.

About four hours away through some of the most beautiful river and mountain scenery in the world, we journeyed on to Dubrovnik. This dream city of the Dalmatian coast was formerly known as Ragusa, an ancient independent republic, along the main promenade, I found a pharmacy shop which announced on the window that it was founded in 1420. I went in to meet the proprietor. Beautiful old jars, balances and mortars made an unusual interior. The owner showed me an inventory of the contents of the shop when the city was taken over for Napoleon in 1811. The list included among other medicaments, vipers and mummy powder. In compounding a prescription for bismuth, each powder was wrapped in a paper indicating that this was the pharmacy Domus Christi, founded 1420.

On the opposite side of the street not far away is a Franciscan monastery. The courtyard with a well is surrounded with cloisters and colonnades. Off one of these cloisters we discovered a pharmacy, presided over by a tonsured monk with brown habit and barefoot sandals. Here also were many antique jars and I could not resist having him fill a prescription. He provided the bismuth in konseals. On further inquiry we learned that this pharmacy was established in 1317.

This prescription, therefore, takes us back through 600 consecutive years of professional pharmacy. Glimpses have been given of shops in Britain, Austria and the Low Countries, as well as in many lands about the Mediterranean. We have visited them in the monastery, the hospital and the market place and even seen their source of supply in religious and lay gardens. The many associations have left the firm conviction that the dispensing pharmacist, having proved his value in the care of the sick over many centuries, merits our wholehearted cooperation in these days when the very existence of his profession is being threatened.

Auricular Flutter

Auricular flutter is often quite indistinguishable from auricular tachycardia, except by means of the electrocardiogram. The mechanism, however, is quite different, and differentiation is important since the treatment of the two is not the same. Flutter is due to a circular contraction wave occurring in the region of the mouths of the vena cavae. This wave is rhythmic and makes the circuit about 300 to 350 times a minute. The auricle is able to respond to this number of impulses but the A-V node is (fortunately) unable to do so. There occurs then a partial block, usually a 2 to 1 regular block with a regular ventricular rate one-half that of the auricle.

Two drugs are usually successful in terminating a paroxysm—quinidine and/or digitalis. If qinidine is used it must be given in large doses, 6 to 10 grains every two hours. If the paroxysm is not terminated in 24 hours, discontinue the drug, then wait 24 hours before giving digitalis.

Digitalis should be given in large doses (3 to 4 units in 24 hours) in order to increase the degree of the block. The patient must be closely observed during treatment, since one of two effects will ordinarily be produced. Either the normal rhythm will be established abruptly or the flutter will be changed to a fibrillation. In either instance the digitalis must be stopped at once. In the event of fibrillation, normal rhythm is usually established in a few hours after the withdrawal of the digitalis.—James F. Churchill, M. D., San Diego, Calif.; Rocky Mountain Med Jour., Vol. 38, No. 12, December, 1941.

Nonhemolytic Anemic States

The importance and significance of nutrition to all anemic states, in which actual toxic destruction or pathologic inhibition of hematopoiesis may be eliminated as factors, has become axiomatic today. Hypoplastic anemia is no exception to this general rule. Marrow hypoplasia develops promptly in the pigeon upon withdrawal of the normal diet. In the mammal this is not demonstrated so readily because of the briefer period of survival. Duke has reported a chronic hypoplastic anemia developing in an adult with a congenitally small stomach with gradual recovery during the succeeding two months on a diet rich in liver and all supplementary vitamins. Prior to the introduction of liver therapy, pernicious anemia was reported to have terminated occasionally with complete marrow aplasia; granulopenia and thrombocytopenia occur regularly in relapse secondary to megaloblastic hyperplasia. Five of eight cases of sprue were found by Fairley et al to have aplastic bone marrows. Pellagra, fatty diarrhea, intestinal parasites and sprue have been described by Witts as terminating on occasion with an aplastic type of anemia, presumably upon a nutritional basis. Miller et al recently described a panhypoplasia of marrow in white rats fed upon a vitamin B_6 deficient diet, while Fouts et al reported anemia only under similar circumstances in puppies. The inclusion of every dietary factor known to influence hemopoiesis and the careful survey of all pertinent, physiologic and pathologic constitutional factors, more especially those involving the integrity of the gastrointestinal tract and the digestion, absorption and utilization of vital food elements, should be a part of every program designed to control hypoplastic syndromes.—Charles A. Doan, M.D., Columbus, Ohio; Jour. Mo. S.M.A., Vol. 38, No. 12, December, 1941.

Undulant Fever

The most unusual way of acquiring undulant fever is by consuming raw milk or other raw dairy products from infected animals. This is particularly true in cities where the only contact with animals is indirect, through raw milk. More cases of human brucellosis in the United States are traced to raw milk than to any other source. The disease is not transmitted from humans to humans.

The incubation period varies considerably, reports ranging from one week to six months. In the case of undulant fever acquired by drinking raw cow's milk the incubation period generally lies between one and three months.—Ragnar T. Westman, M.D., Kansas City, Kansas; Jour., Kansas M.S., Vol. XLII, No. 11, November, 1941.

Unexpected Death in a Young Individual With Cardiovascular Syphilis

Case Record Presenting Clinical Problems

SIMON KOLETSKY, M.D.

THE patient, a colored female, 31 years of age, was first seen in the Medical Out-Patient Department of University Hospital on October 1, 1941, with a complaint of attacks of epigastric and substernal pain of three weeks' duration. The pain was accompanied by nausea and shortness of breath, and was increased on exertion. Physical examination was negative except for a markedly enlarged uterus. An electrocardiogram was taken and showed depression of the S-T complexes in all leads.

On October 3, 1941, the patient was seen in the Gynecological Out-Patient Department and a hysterectomy was advised for fibromyomas of the uterus. At this time physical examination was again negative, her general condition was good, and she walked to the hospital for admission. About two hours later, however, she collapsed suddenly with marked dyspnea and orthopnea, and complained of severe epigastric pain and nausea. On examination the temperature was 38.2, pulse 92, respiration 30, and blood pressure 150/100. The heart was slightly enlarged, the rhythm regular and the sounds feeble, No cardiac murmurs were noted. Moist rales were heard at both lung bases. The dyspnea became progressively worse, the pain continued in spite of morphine and the pulse became imperceptible. Death occurred 12 hours after admission.

The clinical diagnoses were: coronary heart disease, possible pulmonary atelectasis and fibromyomas of the uterus. Laboratory examination revealed a moderate secondary anemia. A Wassermann reaction was not made.

At autopsy the diagnoses were: syphilitic aortitis with complete occlusion of the ostium of the right coronary artery and marked stenosis of the ostium of the left coronary artery, syphilitic aortitic valvulitis with insufficiency, widespread focal necrosis of the left ventricle and of the interventricular septum of the heart, dilatation of the heart, marked pulmonary edema, passive hyperemia of the viscera, hydrothorax bilateral (right 600 cc.—left 225 cc.), fibromyomas of the uterus and chronic salpingitis.

The heart weighed 280 grams. The ventricles were flabby in consistency and dilated but showed no hypertrophy. Distributed diffusely through the left ventricle and also the interventricular septum were focal areas of pale yellow tissue, measuring up to 8 mm. in longest dimension. These were irregular in shape and sometimes elongated so as to produce streaking of the myocardium. There were no areas of infarction. The atrial chambers showed no significant change.

The root of the aorta was the seat of a diffuse syphilitic lesion with irregular scarring and hyaline thickening of the intima. There was extension into the aortic valve which showed thickening, retraction and slight commisural separation of the cusps. The mitral, tricuspid and pulmonary valves showed no abnormality.

The ostium of the right coronary artery was completely obliterated. The left coronary ostium was markedly reduced, almost to pinpoint size. The main coronary vessels showed only minimal sclerosis and were widely patent up to the immediate region of their origin from the aorta.

Microscopically the root of the aorta showed scarring of the media, together with destruction of elastica and marked intimal fibrosis. The ostia of the coronaries were the seat of obliterating endarteritis which had produced complete occlusion of the right orifice. No thrombi were present within the lumens.

Sections of the myocardium of the left ventricle and the interventricular septum showed many focal areas of recent necrosis of muscle fibers accompanied by slight polymorphonuclear exudation but no hemorrhage. In addition there were also foci of degeneration and atrophy of fibers associated with an increase of the interstitial connective tissue. The small blood vessels were slightly thickened but revealed no significant reduction of their lumens. Sections of the right ventricle showed no abnormality.

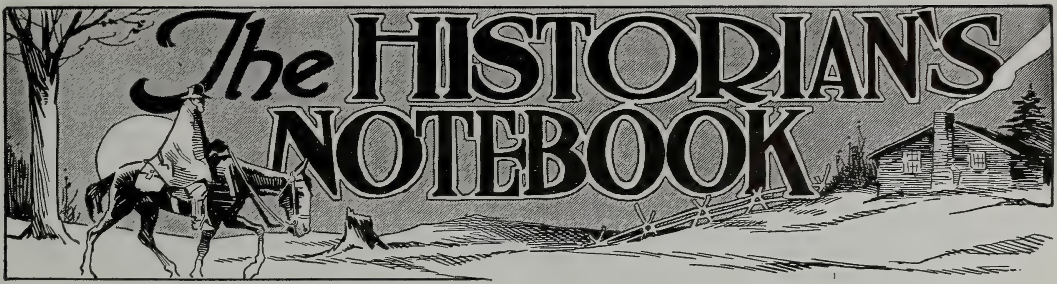
COMMENT

The clinical manifestations in this case are readily explained by the findings at autopsy. The attacks of substernal and epigastric pain were anginal in nature and due to occlusion of the coronary ostia resulting from syphilitic disease of the aorta. Although narrowing of the coronary orifices by syphilis is usually a slow process, the widespread myocardial damage in this case, consisting of necrosis of muscle as well as degeneration and atrophy, indicate that the lesion may have occurred more rapidly.

The patient's sudden collapse and unexpected death can be attributed to acute failure of the heart. With complete occlusion of the right coronary orifice, this presumably occurred when the stenosis of the left ostium progressed to a point incompatible with maintenance of function. However, the exact precipitating factor is not clear. No thrombus was found in the coronary ostia and the vessels beyond the stenosis were essentially normal.

Stenosis of the ostia of the coronary arteries is a frequent complication of syphilitic aortitis. The coronary involvement is usually limited to that part of the coronary artery included in the wall of the aorta. However, in some cases, the stenosis is distal to the aorta and due to syphilitic arteritis of the proximal extra-aortic portion of the artery, i.e., the first 10 to 12 mm. of the vessel. (A. R. Moritz: Syphilitic Coronary Arteritis. Arch. Path., 11:44, 1931).

This is the seventh of a series of "Case Records Presenting Clinical Problems," selected by Dr. H. T. Karsner from the Clinical-Pathological Conference of the Institute of Pathology, Western Reserve University and University Hospitals, Cleveland, Ohio.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Some Early Landmarks in the Medical History of Cincinnati

DAVID A. TUCKER, JR., M.D.

I AM well aware of the fact that a description of landmarks is not the most important item in the history of any institution. It is rather the story of the men whose life and work have made the institution which is of vital importance. I trust, however, that some of you will be stimulated to learn the story of the men who have made medical Cincinnati—from Daniel Drake down to Christian Holmes, of the surgeons—Mussey, Blackburn, Dawson, Conner, Randolph; of the internists—Eberle, Bathalow, Graham, Keyt, Forcheimer, and Morris; of the obstetricians—Parvin, Wright and Taylor.

Allow me to take you back in imagination 141 years. Cincinnati was then a lusty village of some 750 inhabitants, situated on the banks of the Ohio River. It extended from Eastern Row—now Broadway, west to Western Row—now Central Avenue, and north from the river to Northern Row—now Seventh Street. The rest of the basin, as well as the surrounding hills, was covered by virgin forest, except for occasional clearings here and there. It was traversed by numerous foot paths, and by four main roads—one each to the east and west, and two to the north.

Front Street was the most populous and important thoroughfare, and after it Main and Sycamore Streets. The buildings were mainly constructed of logs, with a few frame houses. The one brick building was at the northwest corner of Main. There was a military reservation to the east of Broadway, extending to Deer Creek (a small stream—whose bed now forms Eggleston Avenue) and from Third Street to the river. At the upper part of this area was the block house and accompanying buildings, constituting Ft. Washington. There is now a marker to indicate the site of the Fort, at a widened area in Third Street where it is joined by Ludlow. To the north of the reservation was a tract of several acres which had been cleared and on which, in 1798 or 99, Dr. Allison had erected a log house. This was known as Peach Grove from the peach trees planted there by the Doctor. This area is now Lytle Park.

The Author

● Dr. Tucker, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1916; member American Association of Medical History; assistant dean, and professor of medical history, University of Cincinnati.

Of the social structure of the town, we are told "that drinking to intoxication, public balls, theatrical amusements, horse racing, billiards and various games of chance prevailed to a degree exceedingly unfavorable to habits of business or study. Cards, the most dangerous of all family amusements, were a part of the means of wasting time, in the majority of the houses of the village, and the whiskey bottle was a symbol of hospitality on the whole." Everybody drank, but everybody was not a drunkard; nor must it be supposed that there were no minority of industrious, sober-minded and pious persons, who sought by example as well as by praecept to rectify the morals of the majority. Yet even these were temperate drinkers. Such was Cincinnati when on December 20th, 1800, Daniel Drake began the study of Medicine as an apprentice to Dr. Wm. Goforth, the leading physician of the town. Of this beginning of Medical education, Drake wrote 50 years later as follows:

"Beginning on the 20th of December, 1800, at Peach Grove where the Lytle house now stands, my first assigned duties were to read (John) Quincy's *Dispensatory* and grind quicksilver into unguentum mercuriale, the latter of which, from previous practice on a Kentucky hand-mill, I found much the easier of the two. But few of

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An address delivered at the Convocation of the College of Medicine, University of Cincinnati, September 22, 1941.

you have seen the genuine old doctor's shop of the last century; or regaled your olfactory nerves in the mingled odors which, like incense to the god of Physic, rose from brown paper bundles, bottles stopped with worm-eaten corks, and open jars of ointment, not a whit behind those of the apothecary in the days of Solomon; yet such a place is very well for a student. However idle, he will be always absorbing a little medicine, especially if he sleep beneath the greasy counter. But I must leave off philosophizing and return to my narrative. New studies and a new studio awaited me; and through the ensuing spring and summer the adjoining meadow with its forest shade-trees, and the deep and dark wood of the near banks and valley of Deer Creek, acted in the manner of the wilderness on the young Indian, caught and incarcerated in one of the schoolhouses of civilization. Underneath those shade-trees, the roots of which still send up an occasional scion, or among the wild flowers of the wood which exhaled incense to Flora instead of Aesculapius, it was my allotted task to commit to memory Chesselden on the bones, and Innes on the muscles, without specimens of the former or plates of the latter, and afterwards to meander the currents of humoral pathology, of (Herman) Boerhaave and Van Sweiten; without having studied the chemistry of (Jean Antione, Comte de Chanteloup) Chaptal, the physiology of (Albrecht von) Haller, or the Material Medica of (William) Cullen. Such was the beginning of medical education in Cincinnati. I say beginning, for I was its first pupil."

On August 1, 1805, Dr. Goforth issued to Daniel Drake a diploma certifying to the latter's qualifications for the practice of Physic, Surgery, and Midwifery. Under this authority, Drake practiced Medicine for eleven years, until he was given a degree in Medicine by the University of Pennsylvania in 1816.

In the July 9th, 1817, issue of the "Western Spy" appeared the following notice:

"Drs. Drake and Rogers having connected themselves in the practice of the various branches of their profession, including operative surgery, may be consulted by persons, either from town or country, at their residence on Ludlow and Fifth Streets, or at their common shop, lately occupied by the former. The arrangements they have made for the accommodation and instruction of medical students will enable them to receive any number that may apply."

However, before any definite arrangements for pupils were concluded, Drake accepted an invitation to join the Faculty of the newly organized Medical Department of Transylvania University at Lexington. After a year in Lexington, however, he returned to Cincinnati intent on organizing Medical instruction here. In this connection with Dr. Rogers and a Rev. Slack the following notice was issued in the public print:

"The undersigned beg leave to inform those young men of the Western Country, who are desirous of studying medicine, that they have made the following preparations and arrangements for the instruction of private students:

1—They have collected an extensive medical, surgical and philosophical library, which includes all the journals of Medicine and the physical sciences hitherto published or now issuing in the United States, with some of the principal magazines of Europe.

2—Doctor Drake will, every Spring and Summer, deliver a course of lectures on botany; and every Winter another on materia medica and the practice of physic; the latter course to be preceded by a series of lectures of physiology, and illustrated with specimens of our native medicines.

3—Doctor Rogers will in the Winter season deliver a course on the principles and practice of surgery, illustrated with operations and anatomical demonstrations.

4—Doctor Slack will, during the same season, deliver a course on theoretical and practical chemistry, embracing pharmacy and the analysis of animal and vegetable substances.

5—Doctors Rogers and Drake will in conjunction deliver annually a series of demonstrative obstetrical lectures.

6—They will be able to afford to all who study with them frequent opportunities of seeing clinical practice, both in physic and surgery. The price of tuition, including all the lectures, will be about fifty dollars a year. Should any young gentleman wish to attend the lectures without becoming private pupils, they will be admitted to all courses for forty dollars."

D. Drake, M.D.
C. Rogers, M.D.
E Slack, A.M.

May 27, 1818.

Principally through Drake's efforts, the Ohio State Legislature passed an act on January 19, 1819, creating the Medical College of Ohio. The first session opened November 1, 1820, with 24 students assembling at 91 Main Street on the second floor, above the Isaac Drake & Co. General Store. The Commencement was held in the hall of the Cincinnati College on Walnut Street on April 4, 1821. The sessions of 1824-25 and 25-26 were held in the building of the Miami Exporting Company on Front Street between Main and Sycamore. In 1826, ground was secured on Sixth Street between Vine and Race, and a building erected partly with funds secured by the state.

A contemporary description of the building and equipment is as follows*:

MEDICAL COLLEGE OF OHIO

"This institution was chartered, and placed under the control of a board of trustees, in December, 1825.

"The state furnished the means by which a large and commodious edifice was erected. It contains large lecture room and an amphitheater, together with apartments for the library, as well as private rooms for the professors, and apartments well fitted up for pursuing, privately the study of anatomy. The library contains upwards of two thousand volumes, of well selected standard works. purchased by the state, and for the use of the students of the college. The cabinet belonging to the *Anatomical* department is supplied with all the materials necessary for acquir-

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("Cincinnati in 1841: Its Early Annals and Future Prospects." By Chas. Cist. 1841. Pp. 125-128.)

ing a minute and thorough knowledge of the human frame. These consist of detached bones, of wired and natural skeletons, and of dried preparations to exhibit the muscles, blood-vessels, nerves, lymphatics, etc., etc. In addition, there are very accurate wooden models of the small bones, and representations in wax, of the soft and more delicate structures.

"The cabinet of *Comparative Anatomy* is supposed to be supplied more extensively, and with rarer specimens, than any other in the union. Besides perfect skeletons of foreign and American animals, birds, etc., there is an immense number of detached crania, from the elephant and hippopotamus to the minute orders.

"The cabinet belonging to the Surgical department has been formed at great expense, by the labor of more than thirty-five years. It contains a large number of very rare specimens, among which are sections of the thigh bones, that establish as fact, what European surgeons have long denied, viz: the possibility, by proper treatment of a re-union, after a fracture, of the neck of these bones. There are near five hundred specimens of diseased bones alone.

"On the department of Chemistry, it seems hardly necessary that we should speak. The known industry and extraordinary enthusiasm, in every department of the physical sciences, of the gentleman who fills the chemical chair, are the strongest guarantees, that for the most full and efficient performance of the peculiar duties allotted to him, nothing that was necessary has been left unprovided. Many of his instruments are the result of his own powers of invention, but the most important were selected by himself in Europe, and purchased at great cost.

"Belonging to the chair of *Materia Medica,* is a large collection of indigenous plants, their extracts and other medicinal preparations, together with all the foreign articles used in practice; and the various topics embraced in the department of *Obstetrics* and *Diseases of Women and Children,* are elucidated in part by numerous and exceedingly interesting wax casts, most of which were obtained in Paris from some of the best French artists.

"The students have the advantage of access to the Commercial Hospital, where they witness the medical and surgical treatment of the patients by members of the faculty. This is an invaluable privilege, and affords the students great facilities for acquiring a correct knowledge of diseases and their treatment. There are in the hospital, annually, several hundred patients; and during the two winters usually devoted to attendance upon lectures, as great a variety of diseases is presented to the student, as generally falls under the observation of a physician during a lifetime of practice. But what is of first importance to the western student is the fact, that through the facilities afforded by the connection spoken of, he can acquire a perfect knowledge of those diseases which he will be called upon to treat, on his first introduction into practice. A further advantage of this connection also, is that students have the opportunity of witnessing operations, by one, long and successfully acquainted with practical use of the knife.

"In the prosecution of Practical Anatomy, also, every facility is afforded them that can be obtained at similar institutions of the country.

"The Faculty is composed of six professors, viz: John T. Shotwell, M.D., Professor of Anatomy and Physiology, and Dean of the Faculty; John Locke, M.D., Professor of Chemistry and Pharmacy; R. D. Mussey, M.D., Professor of Surgery; Daniel Oliver, M.D., Professor of Materia Medica, and Lecturer on Pathology; M. B. Wright, M.D., Professor of Obstetrics and Diseases of Women and Children; Jared P. Kirtland, M.D., Professor of Theory and Practice of Medicine.

"The fees of tuition are fifteen dollars to each professor, making an aggregate of ninety. There are six lectures daily.

"At no period during its entire history have the prospects of the school been more encouraging. The utmost harmony prevails in the faculty, and the present class is as large as any which has ever attended, with one exception. There are at present, one hundred and thirty students."

As a side light on the student life of that day, I quote from the Faculty records as follows: "Resolved—That if any student shall fight a duel or be the bearer of a challenge to fight a duel, or be a second accessory to any act or proceeding of the kind, he shall be expelled from the institution." Apparently the Faculty reserved the right of public quarrels and duels to themselves. In another resolution of the period the Faculty set forth the necessity for employing a professional resurrectionist since it was not compatible with the dignity and public reputation of the institution to have Faculty and students engage in grave robbing.

In 1852 the College occupied a new building on the Sixth Street site, which was to house it for 44 years. A contemporary description of the building is as follows: "It is of brick, cast-iron and freestone, in the collegiate Gothic style, one hundred and five by seventy-five feet and forty-eight feet high. The internal arrangements furnish accommodations for professors and pupils which are said by persons competent to speak ex cathedra on the subject to be unsurpassed, in extent of convenience by any institution of the kind in the United States." There were two large amphitheatres each seating over 500 students; rooms for clinics, museum, library, chemical laboratory, and rooms for anatomical dissection.

In 1896, The Medical College of Ohio, having legally become an integral part of the University, was moved to McMicken College building on Clifton Avenue. Here it remained until the present College was occupied in 1917. In 1908 and 1909, the Miami Medical College (founded in 1852) was also integrated with the University. It had, from 1866, occupied a building on Twelfth Street opposite the Cincinnati Hospital, conveniently located for the clinical instrutcion of students. This building still stands and now houses the local Teamsters' Union.

Records which are not entirely complete would indicate that as early as 1815, the Township Trustee had rented a house on Vine Street above Sixth, for the accommodation of sick and injured persons. Little else is known of this first attempt by the local government to furnish hospital care for sick poor. It ceased to function in 1823, when the Commercial Hospital and Lunatic Asylum was opened. The prime mover in the establishment of the Hospital was Dr. Drake, who recognized that with the rapid growth of the city there was an urgent need for facilities in which to care for the sick poor, and second that a Medical College to be permanent and to give adequate instruction to its students must have access to abundant clinical material. Legislation enacted on January 22, 1822, in Section VIII, stated:

> "That it shall be the duty of the Faculty of the Medical College of Ohio to give all patients the Medical and surgical advice which their cases may require, without charge, in consideration of which they shall be at liberty under such regulations as they may choose to prescribe, to introduce the pupils of said College into the said hospital and Asylum, to witness the treatment of patients there assembled. The moneys that may accrue to said College for the admission of pupils into the said hospital and asylum shall be employed exclusively in the purchase of books, anatomical preparations and apparatus for said College."

The following description of the Hospital was published in the Western Medical Gazette in 1832. ("CINCINNATI * * THE QUEEN CITY, Vol. II, page 251.)

> "The site is a four-acre out-lot of the original plat of Cincinnati, bounded on the east by the Miami canal, and is within one mile of the Ohio river, and cost the township four thousand dollars. The principal building is of brick, fifty-three feet front, facing southwardly, and forty-two feet deep, four stories high, including the basement, which is eight feet high, and the other stories nine and a half feet clear, and over these is a convenient operating theater, with seats for about one hundred spectators. This building is divided into eighteen apartments, with a hall and staircase in the center, and neatly furnished throughout. It was built in 1823, and cost ten thousand dollars in depreciated bank paper, estimated to be worth, at that time, about three thousand, five hundred dollars. The inclosures, additions and furniture have cost seven thousand, eight hundred and seventy-seven dollars. The principal addition is a wing of brick, forty-four feet long, and twenty-eight wide, two stories high with a cellar under the whole; it is divided into twenty-two apartments, eleven on each floor, adapted to the safe keeping of lunatics, those on the first floor for males and those on the second for females, and was built in 1827. The whole lot is enclosed with a close board fence; about two and a half acres of the west part of the lot is in grass, where the male inmates are permitted to resort for airing and recreation; the residue of the lot is divided into convenient yards."

An additional wing, twenty-four by fifty-three feet, was built in 1833. The basement of the new wing was divided into three rooms, one of which was for the apothecary shop, one for the lodging-room of the resident physician and apothecary, and the third for the heating apparatus. Above the basement were three stories, each containing a ward twenty-four by fifty-three feet. The capacity after the addition of the second wing was one hundred and fifty, exclusive of paupers and lunatics. Up to 1861, the staff was composed exclusively of professors of the Medical College of Ohio.

The name was changed to the Commercial Hospital in 1861, and, in April, 1868, to the Cincinnati Hospital. In 1866, the Commercial Hospital was torn down and a new group of buildings erected with a capacity of over 500 beds which was occupied January 7, 1869, and served the city and Medical School until 1915, when the present Cincinnati General Hospital was occupied. The site of the Cincinnati Hospital is now used as a parking lot and a market place.

Help for Those Who Have To Make a Speech

GOT a speaking engagement, Doctor?
You can get

"Twentieth Century Medical Progress,"

a suggested talk on recent advances in scientific medicine and medical economics, prepared by the Bureau of Public Education, Ohio State Medical Association.

This is the manuscript of a 30-minute talk on new things in medical science as well as the profession's modern attitudes toward the social and economic problems of health and medical care.

It may be used in preparing your own talk the next time you're invited to address a lay group. It will save you time and trouble. You may either read from the manuscript directly, use it as background, or speak extemporaneously from an outline which will be furnished.

Address your requests to the Bureau of Public Education, Ohio State Medical Association, 79 East State Street, Columbus, Ohio.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. Margaret J. Schneider, Cincinnati; Dr. E. T. Sager, Woodstock; Dr. Max Mendelson, Bellaire; Dr. W. T. Kubiac, Lancaster; Dr. Genevieve Delfs, Youngstown.

Proceedings of The Council

Budget for 1942 Adopted at Meeting on December 14; Many Workmen's Compensation Questions Considered; Reports of Committees Received; Part Medical Profession Must Take in the War Decided

A REGULAR meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Columbus, on Sunday, December 14, 1941, with the following in attendance: President Paryzek, President-Elect McCormick, Past-President Skipp, Treasurer Beer; Councilors Schriver, Hogue, Noble, Brindley, McNamee, Rutledge, Goehring, Swan, Seiler, Sherburne, and Burley; Dr. Forman, Editor of *The Journal*; Dr. Platter, member of the Committee on Public Relations and Economics; Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

The minutes of the meeting of The Council, held on October 5, 1941, as published in the November issue of *The Journal*, were **approved** on **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried.**

Membership—Membership statistics were reported as follows: Membership as of December 14, 1941—6,597, compared to 6,469 as of the same date a year ago and to 6,475 as of December 31, 1940. Of the total number of members to date 266 have been reported as in active military service.

Reports were submitted by members of The Council on activities in and visits to their respective Council medical societies.

Waiver of Dues—On **motion** by Dr. Schriver, seconded by Dr. McNamee and **carried,** The Council voted that 1942 State Association dues should be waived or refunded for physicians now in active military service or entering military service during 1942, providing such physicians were members in good standing in the State Association in 1941 or were completing their medical education in 1941 and are accepted into membership by a component medical society. The resolution provides for the same policy and procedure which were in effect during 1941.

Journal Publishing Costs—A communication from The Stoneman Press regarding printing costs for *The Ohio State Medical Journal* for the calendar year 1942 was considered. The proposal called for a general increase of approximately 10 per cent because of increased labor and paper costs. Proposals obtained from other Columbus printing firms also were reviewed. After a thorough discussion, on **motion** by Dr. Sherburne, seconded by Dr. Swan and **carried,** the proposal submitted by The Stoneman Press was **approved.**

REPORT OF THE COMMITTEE ON AUDITING AND APPROPRIATIONS

At this point The Council went into executive session for the purpose of considering a report of the Committee on Auditing and Appropriations on the financial condition of the State Association and to act on a suggested budget for 1942. The report was presented by Dr. Sherburne, chairman of the committee. On **motion** by Dr. Seiler, seconded by Dr. Burley and **carried,** the following budget for 1942 was **adopted:**

BUDGET FOR 1942

The Ohio State Medical Journal		$11,500
Executive Secretary, Salary		6,300
Executive Secretary, Expense		800
Asst. Exec. Secretary, Salary		4,800
Asst. Exec. Secretary, Expense		600
Stenographic and Clerical Salaries		2,940
President, Expense		500
Treasurer, Salary		300
Council, Expense		900
Public Relations and Economics		7,600
Committee	$2,000	
Bureau Director's Salary	3,600	
Bureau Director's Expense	500	
Bureau Operating Expense	1,500	
	$7,600	
Committee on Education		1,200
Miscellaneous Committees		500
Auditing and Appropriations Committee		100
Stationery and Supplies		1,200
Postage, Telephone, and Telegraph		2,000
Rent, Insurance, Bonding		2,760
Annual Meeting		3,500
A.M.A. Delegates, Expense		500
Total		$48,000

WAR EMERGENCY DISCUSSED AND ACTION TAKEN

A resolution, pledging the complete cooperation of the medical profession of Ohio toward winning the war and offering the facilities of the Ohio State Medical Association to the nation, was **adopted,** on **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried. (See page 64 for text of resolution.)**

The Executive Secretary, reporting for the

Committee on Medical Preparedness, discussed the plan which had been worked out by the Ohio State Council of Defense for creation of local Committees on Medical-Health Defense which would operate under local Defense Councils. The plan provides that whenever feasible the chairman of the Committee on Medical Preparedness of the county medical society should be a member, preferably chairman, of the Local Committee on Medical-Health Defense. This proposal was drafted by Dr. R. H. Markwith, State Director of Health; Dr. Wm. S. Keller, Cincinnati, Medical Officer, Fifth Corps Area, Civilian Defense; and Dr. Robert Conard, Wilmington, Chairman of the Committee on Medical Preparedness, Ohio State Medical Association, and was adopted by the Ohio State Council of Defense on November 4. Bulletins recommending that committees of this kind be established in all Ohio communities have been transmitted by the Ohio State Council of Defense to the mayors of all cities. **(See article, pages 1184-1186, December issue, The Ohio State Medical Journal.)**

The Executive Secretary also reported that the Ohio Council of Defense had established a small State Committee on Medical-Health Defense through which medical and health questions, which should be handled by local Defense Councils, can be cleared. This committee consists of Dr. Markwith, chairman; the executive secretaries of the Ohio State Medical Association, Ohio Hospital Association, Ohio State Nurses' Association; a representative of the Red Cross; and Mr. Courtney Burton, executive director of the Ohio State Council of Defense. It was pointed out that on December 11 the Ohio State Council of Defense, on recommendation of this committee, had sent bulletins to all Ohio mayors urging them to establish emergency medical field units. The purposes and functions of emergency medical field units were explained in a "War Bulletin" issued by the Ohio State Medical Association on the same day to the chairmen of Committees on Medical Preparedness and presidents and secretaries of all county medical societies. War bulletins will be issued frequently from the State Headquarters Office to county medical societies recommending ways they can assist in local civilian defense activities. **(See page 65 for article on Civilian Defense.)**

On **motion** by Dr. McNamee, seconded by Dr. Sherburne and **carried,** The Council authorized the President to accept membership on any committees on medical-health activities which may be established by the Ohio Defense Council, or to deputize someone to serve for him.

At this point Lt. Comdr. Drew L. Davies, MC-V(G), USNR, in charge of Naval recruiting activities in the Columbus area, appeared before The Council. Lt. Comdr. Davies informed The Council that advice which he had received from Capt. A. B. Davidson, MC, U.S. Navy, District Medical Officer, Ninth Naval District, Great Lakes, Illinois, indicates there are "many openings for physicians in the United States Navy, especially those who can be assigned to general practice, with Naval units."

REPORT OF SUB-COMMITTEE ON WORKMEN'S COMPENSATION

A lengthy report from the Sub-Committee on Workmen's Compensation, which had met in Columbus on December 7, 1941, was considered. On **motion** by Dr. Skipp, seconded by Dr. Rutledge and **carried,** the following transactions and recommendations of the committee, as **amended** by action of The Council, were **approved:**

Atlas Powder Company Case—The committee reported on formal protests which had been filed by the committee with the State Industrial Commission with respect to a proposition submitted to the Commission by the Atlas Powder Company. The proposal was that the Commission should permit physicians employed by the company at the Ravenna plant to assign fee bill checks to the company and that the Commission should mail such check directly to the company. In its letter of protest the committee had pointed out that such procedure would be illegal and unprofessional. Subsequent to receipt of the communication from the committee, the Industrial Commission refused to approve the Atlas Powder Company's proposal, stating that it would issue checks directly to physicians rendering services at the Ravenna plant in compliance with the customary procedure of the Commission. At its meeting on December 7 the committee approved the action of the Commission and commended the Commission for its sound attitude on this matter, instructing the chairman of the committee to send an official communication to this effect to the Commission.

Treatment of Patients in Absentia—The committee reported that on two occasions it had held long discussions with respect to a Workmen's Compensation case which had arisen in Toledo involving a dispute between a Toledo physician and the Medical Section of the State Industrial Commission. The Medical Section of the Commission had refused to approve a fee bill submitted by a physician under the following circumstances: At 4 A.M. an injured workman was treated in the emergency room of a Toledo hospital by an intern. The intern, prior to rendering treatment, had discussed the man's injuries over the telephone with a physician who is the "official doctor" for the company where the claimant was employed. The physician who was called on the telephone by the intern did not see or examine the patient prior to or at the time the services were performed by the intern. The hospital and the Toledo Academy of Medicine submitted the question to the Sub-Committee on Workmen's Compensation, requesting the committee to pass on the question as to what constitutes assuming responsibility for a patient on the part of an attending physician and whether or not an attending physician should expect to be paid for medical services rendered by an intern under the circumstances described.

In an attempt to clarify the legal angles, the committee obtained legal opinions from the legal counsel of the Ohio State Medical Association, the Bureau of Legal Medicine of the American Medical Association, and the legal departments of two insurance companies writing professional liability insurance. The committee reported that it had reviewed the legal opinions at its meeting on December 7, 1941, and that inasmuch as the legal opinions were at variance "the Committee on Workmen's Compensation was compelled to consider the question solely from the standpoint of what is good medical practice". Following its deliberations, the committee arrived at the following decision and ordered the Executive Secretary to transmit it to The Council for consideration: "The committee does not condone the practice of treating patients in absentia. Therefore, it believes that a physician should not charge for such practice."

Resolution Approved—At the request of the State Industrial Commission the committee considered a resolution pending before the Commission for action. The purpose of the resolution is to give the Industrial Commission more authority to correct certain abuses, primarily the one whereby a physician would sign medical reports and fee bills for services rendered by assistants under circumstances where the services were not directly supervised by the physician submitting the reports and fee bills, or where the patient is not seen or examined by such physician. The committee approved the resolution, reading as follows:

"Fees for examination or treatment will be paid only to a practitioner duly licensed to render such treatment or make such examination, and then only when such practitioner sees and examines the patient and directly supervises or renders such treatment; provided, however, that exceptions may be made at the discretion of the Commission in the case of diagnostic X-ray pictures or laboratory services.

"Payment of fees will be made only to the practitioner rendering or supervising the services, as provided above, except in the case of hospitals having contracts with The Industrial Commission. Medical reports and fee bills shall be signed in his own handwriting by the practitioner rendering the services or directly supervising the treatment and such signature also shall be typed or printed on such reports and fee bills."

Cincinnati Proposal—It was reported by the committee that it had studied a resolution submitted by the Cincinnati Academy of Medicine asking the Ohio State Medical Association to consult with the Industrial Commission on the matter of increasing medical fees. The committee recommended that the following communication be sent by The Council to the Cincinnati Academy of Medicine in answer to the resolution, and that copies of the letter be sent to the secretary of each county medical society inasmuch as a copy of the resolution had been sent by the Cincinnati Academy to each county medical society:

"The Council of the Ohio State Medical Association acknowledges receipt of a resolution submitted on November 18, 1941, by the Committee on Industrial Medicine of the Cincinnati Academy of Medicine to the Council of the Academy, and which was referred by the Council of the Academy to the Ohio State Medical Association.

"The resolution requesting the Ohio State Medical Association to consult with the Industrial Commission of Ohio 'on the matter of increasing fees for services rendered to industrial cases' and recommending that 'certain portions of the present fee schedule be individually revised', was considered by The Council of the Ohio State Medical Association on December 14, 1941, and prior to that date was discussed informally by the Committee on Workmen's Compensation of the Association.

"The Council and the Committee on Workmen's Compensation of the Ohio State Medical Association wish to assure the Cincinnati Academy of Medicine that the question submitted through the resolution will be given thorough consideration.

"The Council desires to point out, for the benefit of those who may not be familiar with the relationship between the Ohio State Medical Association and the State Industrial Commission, that over a period of years many conferences have been held between representatives of the Association and the Commission, at which the question of fees as well as other medical problems have been considered. As a result of such conferences many constructive changes have been made from time to time in the medical and surgical fee schedule. As a matter of fact, at practically every meeting of the Committee on Workmen's Compensation and representatives of the Industrial Commission modifications in some portion of the fee schedule have been ratified and subsequently put into effect. As a result of these negotiations many parts of the fee schedule have been brought into line with changing methods and conditions and at the same time difficulties and complicated problems which would have arisen had a general revision of the fee schedule been attempted have been avoided. It is the intention of The Council of the Ohio State Medical Association to continue with this policy and to try to deal equitably with all parties concerned in the Ohio Workmen's Compensation System.

"Obviously, The Council of the Ohio State Medical Association and the Committee on Workmen's Compensation welcome specific suggestions regarding changes in the Industrial Commission medical and surgical fee schedule from the county medical societies and individual members of the State Association. At this time it respectfully requests the Council of the Cincinnati Academy of Medicine and the Academy's Committee on Industrial Medicine to file with the Ohio State Medical Association specific recommendations pertaining to changes in the fee schedule so that such recommendations can be considered item by item at the contemplated conferences with representatives of the Industrial Commission.

"In conclusion, The Council desires to point out that the first paragraph of the resolution submitted by the Council of the Cincinnati Academy of Medicine is worded in such a way that it may be confusing to anyone not entirely familiar with the administration of the Ohio Workmen's Compensation Law during the past nine years.

"The paragraph referred to states that 'during the depression of 1932 to 1937 * * * the Industrial Commission of Ohio saw fit to deduct 20 per cent from all Industrial Commission fee bills.' However, the paragraph does not point out the action of the Industrial Commission on May 24, 1933, placing a reduction of 20 per cent on medical bills rescinded by the Commission effective July 1, 1936, at the instance of The Council of this Association, and that since that time medical and surgical bills have been paid in accordance with the regular fee schedule which, as already pointed out, has been revised in part in a constructive manner from time to time at he request of the Ohio State Medical Association.

"By successfully opposing, in 1933, a proposed horizontal reduction in the medical and surgical fee schedule itself, and in convincing the Industrial Commission in June, 1936, that the 20 per cent reduction on fee bills should be eliminated, The Council of the Ohio State Medical Association brought about a very substantial financial adjustment for the medical profession of Ohio generally.

"These facts are enumerated to prevent any erroneous impression as to the status of the medical and surgical fee schedule at this time, and to emphasize that The Council of the State Association is continuously alert to its responsibilities in protecting the interests of the medical profession in the field of Workmen's Compensation and in other relationships similar in character."

Special Fee Disapproved—The committee considered a communication received from an eye, ear, nose and throat specialist protesting the policy of the Industrial Commission in allowing a physician specializing in diseases of the eye $2.00 for an office call but allowing only $1.50 for an office visit to a physician specializing in diseases of the eye, ear, nose and throat for a treatment involving the ear. The committee's decision on this question was that no special fee should be established for office calls for treatment of the ear. The committee expressed itself as believing that the Commission, under its rules and regulations, may allow additional compensation "for unusual treatment" if the facts indicate and that this regulation should be applied for otological treatment, providing proper and sufficient evidence is submitted by the physician rendering such treatment.

Fee for First Office Call—The committee reported that it had discussed the question of what fee should be paid a physician seeing a claimant for the first time in his office in cases where the claimant had received initial treatment by an intern or resident in a hospital emergency room. The committee voted to recommend to the Commission that when a physician sees a claimant for the first time, he is entitled to the fees as stipulated in the fee schedule for first dressing at office or home, even though the patient may have been treated prior to that time in the emergency room of a hospital by someone other than such physician.

Fee for Services in Emergency Room—Another question considered was that of payment of medical fees to physicians in cases where the claimant is taken to a hospital emergency room and where subsequent services are provided by a physician in his office. In order to clarify this situation the committee approved the following proposal which, **after amendment**, was **approved** by The Council:

"Whenever a claimant reports to a hospital for first aid and first aid is rendered in the hospital by a physician, other than intern or resident, the physician shall be paid for his professional services and the hospital shall be paid for the use of its facilities. If the claimant is rendered first aid in a hospital by an intern or resident, the hospital shall be paid for the use of its facilities. If the claimant subsequently is referred to another physician for treatment, such physician shall be paid at the rate allowed under the fee schedule for minor injuries, first dressing."

Miscellaneous—The committee reported that it planned to discuss with the Industrial Commission the matter of increase in paper work required of physicians and that it would request the Commission to keep such paper work at a minimum and not to place a greater burden of this kind on members of the medical profession.

In discussing the question of coercive procedures taken by some employers to force employes to go to a company-employed physician for medical services, the committee expressed the opinion that a solution to this problem, involving the principle of free choice, is primarily one which has to be met through conferences between medical societies and employers, and medical societies and groups of employes. There is no legal provision which compels an employe to accept the employer's selection of a physician unless he chooses to do so, the committee pointed out.

Communications from Dr. Carl M. Peterson, secretary of the Council on Industrial Health of the American Medical Association, and Dr. C. D. Selby, a member of the Council on Industrial Health of the A.M.A., requesting the cooperation of the Ohio State Medical Association and urging appointment of a Committee on Industrial Health in Ohio, were considered by the committee. The committee recommended that The Council pledge its cooperation and that if it desired to name the Committee on Workmen's Compensation as the liaison between the Ohio State Medical Association and the American Medical Association on such matters, it would devote a large part of its next meeting to a discussion of industrial health and would invite Dr. Peterson to attend such meeting. The Council voted cooperation with the A.M.A. in such matters and authorized the Committee on Workmen's Compensation to act for the State Association on questions of industrial health, instructing the Executive Secretary to so inform Dr. Peterson and Dr. Selby.

PROGRESS ON MEDICAL SERVICE PLANS

On behalf of the Committee on Medical Service Plans, the Executive Secretary reported on transactions at a meeting of that committee on Sunday, November 1, 1941, in Columbus. The report stated that the committee is preparing some additional material which it believes will be helpful to county medical societies and that this will be transmitted to all medical societies in the near future. On **motion** by Dr. Hogue, seconded by Dr. Beer and **carried**, the report of the committee was **approved.** There was a general discussion regarding medical service plans activities in various parts of Ohio and in other states. On **motion** by Dr. McCormick, seconded by Dr. Rutledge and **carried**, the Committee on Medical Service Plans was authorized to send a representative to other states for a first-hand investigation of medical service plans in operation in such states should the committee believe such an investigation desirable.

PREMARITAL EXAMINATION LAW

Communications from the two members of the State Association, referring to procedure for the approval of laboratories for the performance of serological examination of blood specimens for applicants for a marriage license, were considered. Dr. R. H. Markwith, State Director of Health, appeared before The Council on invitation of the President and discussed this question. Following a lengthy discussion and question-and-answer period, on **motion** by Dr. McCormick, seconded by Dr. Skipp and **carried**, The Council offered its cooperation to Dr. Markwith in perfecting procedure for evaluation of laboratories and authorized the President to appoint a committee to serve in an advisory capacity to Dr. Markwith on this matter, such committee to have the power to act. Pursuant to this action of The Council, the President, Dr. Paryzek, designated the standing Committee on Public Relations and Economics to assume this responsibility.

MISCELLANEOUS BUSINESS

Committee Reports—Reports by the Committee on Scientific Work, with respect to plans for the 1942 Annual Meeting, and of the Committee on Poor Relief which had met in Columbus on Sunday, November 30, 1941, were submitted and **approved** on **motion** by Dr. Goehring, seconded by Dr. Swan and **carried.**

Postgraduate Lectures—A review of the series of postgraduate lectures, held during November, was presented by Mr. Saville, Assistant Executive Secretary. On **motion** by Dr. Hogue, seconded by Dr. Burley and **carried,** The Council commended the Committee on Education for having provided such splendid programs and recommended that the same type of programs be presented next year, if circumstances permit.

Amendment Approved—Amendments to the Constitution and By-Laws of the Cleveland Academy of Medicine, relating to the procedure for the conduct of elections, which had been adopted by the Cleveland Academy of Medicine, were **approved** on **motion** by Dr. McNamee, seconded by Dr. Rutledge and **carried.**

Women's Field Army—A communication from Miss Bell Greve, state commander for the Women's Field Army for the Control of Cancer, asking the assistance of members of The Council in planning for a series of meetings in the various Councilor Districts, was discussed. On **motion** by Dr. Brindley, seconded by Dr. McNamee and **carried,** The Council voted its cooperation to the Women's Field Army, it being understood that each member of The Council would personally assist the Women's Field Army in making plans for such district meetings, the handling of details for such meetings to be the responsibility of officials of the Women's Field Army.

National Physicians Committee—The activities of the National Physicians Committee were discussed by Dr. McCormick. On **motion** by Dr. Goehring, seconded by Dr. McNamee and **carried,** The Council requested the Committee on Public Relations and Economics to study the activities of the National Physicians Committee and to submit a report to The Council at a future meeting.

Resignation Accepted—The Council accepted with regret the resignation of Dr. John H. Skavlem, Cincinnati, as a member of the Sub-Committee on Workmen's Compensation and, on **motion** by Dr. Beer, seconded by Dr. Schriver and **carried,** authorized the President to appoint a successor to Dr. Skavlem.

Welfare Question—A communication from Miss Anne B. Lanman, consultant on Boarding Homes, Division of Social Administration, State Department of Welfare, asking the assistance and advice of the Ohio State Medical Association on medical and health questions arising in the placing of children with foster families, was discussed. On **motion** by Dr. McNamee, seconded by Dr. Skipp and **carried,** the communication was referred to the Committee on Public Relations and Economics for study and a report back to The Council.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

The Medical Profession of Ohio United and Ready for Service On All Fronts!

WAR between the United States and the Axis Powers has placed grave responsibilities on the medical profession of Ohio; it has created solemn obligations which must be fulfilled.

The Council of the Ohio State Medical Association is confident that these responsibilities and obligations will be met. History reveals that the physicians of Ohio always have responded wholeheartedly to the nation's needs. This new crisis finds the medical profession willing and ready to utilize all of its resources and to make tremendous sacrifices in helping to proseccte the war to a victorious conclusion.

Fortunately, because of the foresight of officials of the Ohio State Medical Association, the medical profession is prepared to act promptly and efficiently. The Committee on Medical Preparedness of the State Medical Association and similar committees of each county medical society in Ohio have been operating smoothly and earnestly for the past 16 months. The Association has been actively cooperating with the War and Navy Departments. the Selective Service System, the United States Office of Civilian Defense and the Ohio State Council of Defense. The medical profession in Ohio is organized for this crisis.

Now, however, all activity must be intensified. More physicians will be needed by the armed forces. Knowing the patriotism of the medical profession, we are confident that this urgent need will be met. Approximately 600 Ohio doctors are already on active military duty. Under plans worked out between the American Medical Association and the Government, the medical personnel of the armed forces will be increased as needed in an orderly manner. Should Selective Service require additional medical personnel, we know the physicians of Ohio will respond.

In modern warfare, no community can feel free of threat. Medical and health protection must be given the civilian population. Communities remote from the theaters of fighting must be protected from local disorders and disasters. Adequate, efficient Civilian Defense organizations should be set up in all communities. The medical profession is obligated to take a big part in these activities. We are sure physicians in all areas of the state will fulfill this obligation. As the medical personnel of the armed forces is increased, the medical personnel of some communities may be diminished to the danger point of inadequacy. This problem must be attacked promptly, for no area should be left without adequate medical-health protection.

The Ohio State Medical Association is making available all of its facilities for use wherever they can be of the greatest assistance in winning the war. The same policy should be pursued by all county medical societies. On the other hand, so far as possible, normal activities will be carried on by the Association as there are civilian medical and health problems which must not be neglected. At this time medical organization must be at the peak of efficiency. The job to be done is tremendous and can be done in the proper way only through coordinated efforts. Ohio's medical profession can do a real job on all fronts because it works as an organized unit. It must continue on this basis.

The Council of the Ohio State Medical Association has no hesitancy at this time in pledging the undivided support of the medical profession of Ohio to the gigantic task which confronts our nation. It earnestly requests every Ohio physician and every county medical society to give complete cooperation in all activities designed to achieve victory for the United States and her allies.

(Adopted December 14, 1941)

The Council
Ohio State Medical Association.

Civilian Defense Activities in Ohio Accelerated; Need for Local Emergency Medical Field Units Emphasized

CIVILIAN defense activities in Ohio have been accelerated as a result of the entry of the United States into the war. The Ohio State Council of Defense is pressing for the creation of Local Councils of Defense in every community so civilian defense activities can be coordinated. Every city and county will be expected to have such a council and, as pointed out in the December issue of *The Journal*, each local council should have a Committee on Medical-Health Defense, composed of representatives of the local medical society (preferably the chairman of the Committee on Medical Preparedness), local hospitals, local nurses' society, local health department, dental society, pharmaceutical society, Red Cross, etc. The Ohio State Council of Defense has created a committee composed of representatives of these groups to coordinated activities on a state basis and to cooperate with the U. S. Office of Civilian Defense.

BULLETIN SENT TO MAYORS

One of the present needs in all communities is the establishment of Emergency Medical Field Units. A bulletin to this effect was sent to all Ohio mayors on December 11 by Courtney Burton, executive director, Ohio State Council of Defense. Each mayor also has received Pamphlet No. 1, issued by the U. S. Office of Civilian Defense, Medical Division, outlining the functions of Emergency Medical Field Units.

A bulletin (War Bulletin No. 1) issued on December 11 by the Ohio State Medical Association to the Chairman of Committees on Medical Preparedness and Presidents and Secretaries of County Medical Societies referred to the need for medical field units in all communities and urged local medical societies to assist in setting them up. Local preparedness committee chairmen have been furnished a copy of Pamphlet No. 1 from the U. S. Office of Civilian Defense. The bulletin issued by the Ohio State Medical Association read as follows:

Chairmen of Committees on Medical Preparedness,

Presidents and Secretaries of County Medical Societies:

EMERGENCY MEDICAL FIELD UNITS NEEDED IN EVERY COMMUNITY; HELP ORGANIZE THEM

As we informed you in a communication on November 27, Local Preparedness Committees and Presidents and Secretaries of County Medical Societies will be expected to play important roles in civilian defense activities in Ohio. Now we are at war, so the responsibilities and obligations of all of you are tremendously increased. Here is a problem which demands your earnest and immediate attention.

"War Bulletins" Will Be Sent To County Medical Societies

On the Cover Page of this issue is reproduced the heading of "War Bulletins" which will be issued from time to time by the Ohio State Medical Association to Chairmen of Committees on Medical Preparedness and Presidents and Secretaries of County Medical Societies.

The first "War Bulletin" was issued on December 11, three days after the United States declared war on Japan. It referred primarily to the need for Emergency Medical Field Units in all communities and urged local medical societies to assist in forming them.

Future "War Bulletins" will make recommendations as to how the medical profession can assist in winning the war and provide local medical societies with information provided by the Ohio Defense Council, U. S. Office of Civilian Defense, the War Department, American Medical Association, and the Committee on Medical Preparedness and The Council of the Ohio State Medical Association.

It is suggested that these "War Bulletins" be read and discussed at each meeting of a county medical society.

The Medical Division, United States Office of Civilian Defense, wants emergency medical field units established at once in every Ohio community.

This question was considered yesterday by the Committee on Medical-Health Defense of the Ohio State Council of Defense. Steps to follow out the instructions from Washington have been taken. Success will depend, to a large degree, on the active cooperation of the medical profession in every county.

The Ohio State Council of Defense is issuing a bulletin to every Ohio mayor. Your mayor has received this bulletin or will receive it shortly. The bulletin requests each mayor to take the proper steps at once to see that emergency medical field units are organized. Get in touch with your mayor and give him your active cooperation.

If you have a local Council of Civilian Defense, it is assumed that it has created a local Committee on Medical-Health Defense, referred to in our letter dated November 27. Obviously, such a committee, on which your medical society should be represented, should be given the responsibility for setting up medical field units.

If you do not have a local Council on Civilian Defense, your mayor should establish one at once, as well as a Committee on Medical-Health Defense. Even before such an organization is established, action should be taken on setting up emergency medical field units. This can be done through conferences attended by you and representatives of your local hospital or hospitals, nurses organization, Red Cross and other groups. A temporary organization of this kind could carry on until your mayor has established an official Defense Council.

If you are a Medical Preparedness Chairman, you will find enclosed a pamphlet (No. 1) issued by the Medical Division, United States Office of Civilian Defense, in which are important instructions and data regarding emergency medical field units. Read the pamphlet carefully.

Civilian defense is necessary. Medical and health activities are important phases of civilian defense. Each County Medical Society must play a leading part. Get representatives of other groups, vitally interested, together and confer immediately with your mayor. Emergencies may not develop in your community, but you should have an organization and you should be ready to come to the assistance of nearby communities in event they are confronted with emergencies arising from sabotage, disasters, internal disorders, etc.—anything which would retard war industries or disrupt normal civilian activities.

The Committee on Medical Preparedness and the Headquarters Office of the State Medical Association are cooperating to the fullest extent, not only with the War and Navy Departments but with Civilian Defense agencies, state and Federal. We are looking to you and all members of your societies for active assistance. The medical profession has a big job and a big stake in this crisis. Keep your eye open for frequent bulletins.

FIELD UNIT SET-UP

Pamphlet No. 1 of the U. S. Office of Civilian Defense carries the following information and suggestions regarding Emergency Medical Field Units and how they will be expected to function:

An Emergency Medical Field Unit should consist of two or more squads, and a physician should be appointed to command the entire unit. Squad leaders, in turn, should be designated. The size of the Emergency Field Unit should be in proportion to the bed capacity of the parent hospital. All members of Field Units should be instructed in first aid, including care of burns, prevention of shock, control of hemorrhage, emergency treatment of fractures and wounds, and in the technique of decontamination.

Personnel.

1. Small Squads: In hospitals of less than 200 beds, it is recommended that the Emergency Field Unit consist of two squads, one for each 12-hour shift of the day. Each squad should be composed of two physicians, two or more nurses, and two or more orderlies or nurses' aides, and be capable of functioning, if necessary, as two separate teams. At least one Unit of this size is advisable for a population up to 25,000.

2. Large Squads: In hospitals of more than 200 beds the Emergency Field Unit should consist of two squads of four doctors, four or more nurses, and four or more orderlies or nurses' aides, one of the physicians in each squad to act as squad leader. Each of the squads should be on first call during a 12-hour period of the day. The personnel and equipment of a squad should be divisible into four teams, capable of functioning if necessary at separate sites of disaster. At least one Unit of this size or two Units with small squads are advisable for populations up to 50,000.

3. In hospitals of more than 350 beds the Emergency Field Unit should consist of four or more large squads, each headed by a squad leader and capable of functioning, if necessary, as multiple teams. In these large hospitals at least two squads should be on call during each 12-hour period of the day, alternating on first call on alternate days. An Emergency Field Unit of four large squads or two Units of two large squads each, are advisable for a population of 100,000. In large cities, the desirable minimum would be four large squads (16 physicians and assistants) per 100,000.

4. It will be advisable to organize physicians and nurses engaged in private practice in the area into reserve Emergency Field Units related to hospitals. In areas with small hospitals whose resident staffs cannot be depleted, the primary Emergency Unit of a hospital may be made up in whole or in part of practitioners from the community.

Transportation.

A hospital ambulance, station wagon, small truck, or passenger vehicle will be adequate to transport the personnel of a squad and their equipment to the site designated by the local Director of Civilian Defense for the establishment of a Casualty Station. On return trips to the hospital with casualties such vehicle will be available for transportation of additional squads and equipment if required. Hospitals which do not maintain an ambulance service will find it necessary to provide for transportation, utilizing private or municipal ambulance services, small vehicles of the police, fire, or other municipal departments, station wagons, or passenger cars.

To the Medical Profession of the United States

THE establishment by the government of a Procurement and Assignment Agency properly places the responsibility for obtaining medical personnel in the hands of the medical profession. The success of this agency depends entirely on a few basic features: the complete cooperation of medicine in what even the most doubting must now admit is a truly national emergency; an unqualified willingness to serve the country however, wherever and whenever required; and a firm purpose to establish the fact that medicine intends to maintain its place in the forefront as it always has when a patriotic example is of such signficance.—**Dr. Frank H. Lahey, President, American Medical Association.**

* * *

THE Medical Department of the Navy expresses its deep appreciation to the medical profession of our country. Now that war is actually upon us, the Navy will need more medical officers. It has no fear regarding its needs being met; the past has shown whole-hearted cooperation. This war must come to a successful conclusion. I am convinced that the medical profession will do its part to bring that about.—**Ross T. McIntire, Rear Admiral, United States Navy, the Surgeon General.**

* * *

THE present very cooperative and effective relationship between the Army Medical Department and those great bodies representative of the civil medical profession give assurance that during the present emergency medico-military affairs will be administered with the greatest possible degree of efficiency to the Army and to the civil population of our country. —**James C. Magee, Major General, United States Army, The Surgeon General.**

* * *

THE mobilization and utilization of the medical profession have been placed in the hands of the profession itself through the establishment of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians. I am sure we may rely, as always in the past, on the patriotism of the American medical profession.—**Paul V. McNutt, Director, Officer of Defense Health and Welfare Services.**

Special racks can be installed in private ambulances and in station wagons and small trucks so that they may be utilized in an emergency for the transportation of four or more stretcher patients at a time.

Private vehicles recruited for ambulance purposes by the American National Red Cross or other agency should be assigned to a hospital or to a designated parking center under the control of a transport officer.

Medical and Surgical Equipment.

The medical and surgical equipment for a squad should consist of a working supply for each physician's team and a reserve supply of sterile dressings and equipment in drums or packs from which the working supplies of the teams may be replenished. The working supply of each team is best carried in a portable bag, box, or haversack provided with suitable compartments.

The provision of working supplies in a separate container for each physician will permit the squad of a Casualty Station to split off teams of one physician and assistants who can be dispatched to set up subsidiary First Aid Posts at other sites.

Casualty Stations and First Aid Posts.

Upon arrival at the site of a disaster, the squads of the Emergency Medical Units which have responded to the appropriate alarm will set up Casualty Stations at the sites designated by the local Director of Civilian Defense. The location of a Casualty Station should provide safety, shelter, and accessibility. Stretchers, cots, and blankets will have arrived in a truck carrying the Rescue Squad of the police, fire, or other municipal department. Until released by authority of the local Director of Civilian Defense, the physicians and nurses of the Emergency Medical Unit should remain at their station, to which the injured will be directed or transported on stretchers by the Rescue Squads and volunteers enlisted by them for this purpose. The work of the Casualty Station is to be limited to emergency first aid procedures—the relief of pain, prevention of shock, control of hemorrhage, care of burns, application of simple splints and of surgical dressings and, not least, the preservation of morale by the establishment of confidence. The seriously injured will be evacuated as rapidly as possible by ambulance or other vehicle to a hospital. Those with minor injuries will go to their homes or to temporary shelters.

If necessary, the squad leader in charge of a Casualty Station may split off one or more teams of one physician and assistants, dispatching them to set up subsidiary First Aid Posts at other sites.

It will be advisable for the local Chief of Emergency Medical Service to prepare a spot map of the area to indicate all out-patient clinics, health centers and their substations, and all police and fire stations or other sites which could serve in an emergency as Casualty Stations or First Aid Posts. He should also maintain an inventory of available transportation.

Decontamination Stations.

A subsequent bulletin will deal with the structural requirements of Decontamination Stations and with details concerning the care of casualties from chemical agents.

Rescue Squads and Stretcher Teams.

Casualties will be conducted on foot or transported on stretchers to the nearest Casualty Station or First Aid Post by Rescue Squads of the police, fire, or other municipal department. These Rescue Squads may be assisted by Air Raid Wardens and by volunteers enlisted at the time. Police and fire reserves should be well trained in first aid and stretcher bearing, and organized into Rescue Squads of four or eight, headed by a squad leader. By the addition of volunteers, a Rescue Squad is capable of being multiplied into as many stretcher teams as there are members, each trained member becoming the leader of a team.

Provision should be made for the storage of standard stretchers, collapsible cots, and blankets in designated locations, such as police and fire stations, hospitals, health centers, or other suitable place. The number of standard stretchers stored in each police and fire station should be equal to the number of members of the station's Rescue Squads.

It will be advisable to have three times as many collapsible cots as stretchers and two blankets for every stretcher and cot. This equipment should be transported by the truck carrying the Rescue Squad to the site of the Casualty Station or First Aid Post.

Records.

Identification tags should be affixed to the injured by the Rescue Squad or else immediately upon arrival at the Casualty Station or First Aid Post. A duplicate record should be kept in a book which should be standard equipment of each medical emergency team. The record should include the name or other identification, address, person to be notified, diagnosis, first aid administered, morphine if given, and disposition. A form approved by the Medical Division of the Office of Civilian Defense will be found in a supplementary memorandum on equipment. One nurse or nurses' aide should be assigned the responsibility for these records. The forehead of tourniquet cases and of patients urgently requiring priority attention should be marked TK or U, respectively, with a red crayon skin pencil, or lipstick.

Drills.

It is recommended that drills be called at each hospital once a month by the Chief of the professional staff. A record of each drill should be kept by him, which will show the time required for complete mobilization of a squad at the designated point of departure and the condition of equipment and transportation.

It is also recommended that field drills be called unexpectedly by the local Director of Civilian Defense at least every three months for each hospital. Each field drill might appropriately include one or more Rescue Squads of the police, fire, or other municipal department, who will assist the Emergency Medical Squads in setting up Casualty Stations at designated sites. The official in command at the drills should inspect the clothing, equipment, and transportation of all participating units and render a report to the Chief of Emergency Medical Service and to the local Director of Civilian Defense upon the promptness and efficiency of each unit. The larger field drills might include the Canteen and other Emergency Relief Services of the Welfare Department or of the local chapter of the American Red Cross or other local agency.

A.M.A. Congress on Industrial Health To Be Held in Chicago, Jan. 12-13

The Fourth Annual Congress on Industrial Health sponsored by the American Medical Association will be held at the Palmer House, Chicago, Monday and Tuesday, January 12-13. The meeting is open to physicians and others interested in industrial health. There is no registration fee.

The meeting will open Monday morning at 9:45 with a report of the Council on Industrial Health of the A.M.A. Topics to be discussed during the two-day session include: Tuberculosis in Industry; Industrial Dermatoses; Undergraduate Industrial Medical Education; Postgraduate Education in Industrial Health; Traumatic Surgery. The complete program appears on pages 1990-1 of the December 6 issue, *The Journal of the A.M.A.*

On Wednesday, January 14, a clinical program will be held in conjunction with the University of Illinois College of Medicine, illustrating practical problems in industrial medicine, industrial hygiene and traumatic surgery.

Dr. D. M. Glover, Cleveland, a member of the Committee on Workmen's Compensation, Ohio State Medical Association, has been designated to represent the Association at the Congress.

In Our Opinion: Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Racketeering In Marriage—and Maybe in Medicine

For years certain counties in Ohio have had the reputation of being the locale for flourishing "marriage rackets", patronized to a large extent by couples from adjoining states. Until recently the medical profession was not involved in any manner in this shady "industry". Now the picture has changed. Since August, when Ohio's premarital examination law became effective, the medical profession has had to assume an important responsibility in helping the probate courts decide whether or not a couple should be issued a marriage license. Since "marriage rackets" continue to flourish in some counties, it may be assumed that a few members of the medical professional are guilty of aiding and abetting the operators of such rackets—some unwittingly, no doubt.

We're not optimistic enough to believe that the day will ever arrive when all "Gretna Greens" will be eliminated or when the premarital examination law will function perfectly. Nevertheless, we believe that it is time for the medical profession as a whole to do what it can to break up undignified, probably unprofessional and illegal, practices on the part of a few physicians, such as those referred to above.

In our opinion the Professional Relationship Committee of the Toledo Academy of Medicine has provided the answer as to what can and should be done. It deserves commendation for its promise to take necessary action, set forth in the following statement (other county societies please note) published in the *Toledo Academy of Medicine Bulletin*:

"Most members of our Academy probably noticed in the papers some few weeks ago, some derogatory remarks concerning the Medical Profession. This all culminated because one member of the judiciary noticed some rather irregular practices in the Court House concerning marriage licenses. It seems that the evidence presented made it appear as though the profession was in collusion with some of those well known marriage racketeers. Maybe the facts were somewhat distorted, but our profession came in for the brunt of the criticism. They did not criticize these buzzards (and the term is meant in all its literal sense), because they expected no more of them, but they did think that there was still some poise and dignity in our profession.

"As is often times the case, the whole profession suffers because of some misdoings of a few. Is our Academy going to condone, or be entirely indifferent to a few members who want to get into the gutter and lie down with these 'buzzard marriage racketeers'? The answer is emphatically 'No'.

"This type of medical practice is contrary to the A.M.A. Code of Ethics. It is definitely outlawed and comes under the name 'Solicitation'.

"Therein lies the modus operandi and the teeth for your Academy to act—and they have and will again if any violations concerning solicitation are found in our roster in the future. Our house has been pretty well in order, and we intend keeping it just that way. Transgressors can expect the full penalty."

One Viewpoint About Professional Liability Insurance Coverage

Every physician realizes why he should carry professional liability insurance and why this type of insurance should be placed with none but a reliable company. But, many physicians are not so sure as to the size of the coverage they should have and considerable confusion has arisen recently because of conflicting advice about coverage given by representatives of various insurance carriers.

It is not our intention to argue for or against lower limits or higher limits with respect to professional liability coverage. In the end, the final decision rests with the individual physician. However, it is a fact that some companies writing such insurance have placed a restriction on the amount of insurance they will sell to any one physician. This action has caused much controversy here in Ohio. Therefore, in our opinion, the profession generally should know something about the logic used by those companies in arriving at their decision.

The following explanation offered by one company advocating lower limits is offered solely to provide the profession with information and with one viewpoint on this debatable question. Our attitude relative to the arguments is neutral, leaving it to the individual doctor to pass judgment on them:

"Lower limits offer less temptation to damage seekers. For many years the ——— Company issued an indemnity contract under which its obligations were solely to the person insured. The trial of a damage suit, therefore, did not expose the insuring company to the plaintiff at any time, even in case of a judgment against the assured. For this reason it mattered not what limits of insurance a doctor carried. The plaintiff could legally recover only from the doctor himself, not from the insurance company. Insurance did not affect the size of verdicts in professional damage suits or handicap a compromise, if the doctor desired such to be made. So long as we were providing insurance for the doctor, we had no objection to writing larger limits.

"Recent years have witnessed the passing of the indemnity form of contract, such contracts, regardless of their wording, being construed by judicial opinion as liability contracts. Fundamental legal principles and constitutional provisions have been successfully attacked by persistent self-serving damage suit lawyers who have sooner or later found a last resort court, in one state and another, willing to declare such contracts to be liability rather than indemnity contracts. At the same time these courts fastened upon the liability contracts a direct responsibility to claimants for the insurer. Hence the plaintiff can now recover whatever amount of insurance the doctor carries, even though, what he actually has subject to execution otherwise, represents a much lesser amount.

"With the passing of the indemnity contract, large insurance limits thus became more a liability than an asset in professional protection. They served to invite large verdicts when there was no occasion for them. They centered the attention of courts and juries upon the question of insurance rather than upon the issues in the trial. They increased the activity of damage suit lawyers whose interest would lessen considerably with less inviting insurance targets. They created fictitious estates far beyond the actual means of the professional men carrying them. They handicapped or made impossible compromises which were desired by professional men in difficult situations. They decreased rather than increased the actual protection of the assured. They became insurance for the plaintiff.

"So long as large damage limits become insurance for the plaintiff, the ———— Company recommends lower limits for the best interests of its many contract holders."

Now Is No Time For Waste in Making Medical Care Available

In the past we have stood out firmly against the tendency to consider medical care a commodity to be purveyed like other goods and services. The physician's skill, we have averred, can not be dispensed in parcels, nor is it amenable to the ordinary routine of merchandising. The doctor of medicine, we have stoutly declared, is not engaged in a trade.

But today's crises throws a new light on the practice of medicine.

Commodity or no, trade or no, medical care is now an item of extreme importance to the nation's war effort, and as such it must be rationed. Like metal, like rubber, like manganese, like the other vital necessities which must be available in unceasing flow to America's armed forces, medical care is a **sine qua non** for victory. The crazy disruptions in the peacetime pattern of life which result from modern world conflict have jolted the normal ratio of demand and supply, in medicine as in other things, radically out of kelter.

This does not mean, of course, ration cards for patients or any other equally distasteful and ruinous system of mechanized medical practice. It does mean, however, that the producers of medical care will have to work at peak efficiency, that the supply must not be wasted, and that the ultimate consumers will have to base their demands on true need.

In other words, even in the face of drastic reduction in the number of civilian physicians and medical facilities, the profession must continue in its determination to let no one want for medical attention. The public, on the other hand, must be educated to know when it really needs medical care. Fashionable ladies must be encouraged to stop taking up the physician's valuable time with imagined aches and pains, but appendixes and pneumonia must continue to receive as thorough care as ever.

This is a task for the medical profession; the OPM can't handle it.

Basic Policy for School Health Program In Ohio Drafted

"A School Health Policy for Ohio," as outlined in an attractive booklet, has been prepared and distributed by the Advisory Committee on Health Education of the Ohio Public Health Association. It has been placed in the hands of school administrators and teachers of health and physical education as a means of providing the state with at least a statement of fundamental principles as to what should properly be included in a good school health program.

In a comprehensive manner this suggested policy divides the program into two chief categories, school health services and school health instruction. Under the former classification it lists those services intended to protect and improve the individual pupil's health and those services which are for the purpose of improving and protecting the school environment from the viewpoint of health.

As a basic concept it "presupposes the school's responsibility for developing a policy regarding these examinations (routine and special physical examinations of pupils and teachers) wherein pupils and employees are encouraged to be examined periodically by their **family** physician." Discussing examinations conducted in the schools and by school physicians, it says: "As usually planned, the physical examination given at school is limited to a consideration of factors related to a pupil's ability to carry on satisfactorily the modern school program. Such an examination is not an adequate substitute for continued health supervision by the private practitioner. Therefore, the referral of pupils to their private physician for examination is good practice."

Admittedly, the standards set up in this suggested school health program are high. Theoretically, they constitute the ideal. However, from a practical consideration, if this policy is adopted in many Ohio communities, as it may well be, it will place added and important responsibilities squarely on the shoulders of the county medical society as well as the individual physician, for the policy says at the outset that it assumes the active interest and cooperation of local medical, dental, and health organizations. It suggests, further, that school authorities might enlist the aid of the medical society in working out a program for adequate follow-up programs based on findings of the examinations.

Furthermore, by suggesting periodical physical check-ups by the family physician, as in the quotation above, it emphasizes the value of preventive medicine to children, and it advocates, as does the medical profession itself, that these examinations be done by the practitioner who is best qualified to do them.

Hence, this is a school health policy which, as far as its medical aspects are concerned, is on sound ground. It is impossible to know at this time what its ultimate effect in Ohio will be, but, nevertheless, the fact of its direct interest to the individual Ohio physician and the county medical society cannot be overlooked. If properly administered by sensible persons and with the cooperation and guidance of the local medical society, it promises to be a real asset in any community which should feel disposed to inaugurate it.

Unless the Public Is Properly Informed It Will Garble the Facts

There are virtually no restrictions to the tall stories which can be dreamed up about medicine by the imaginative layman with only half truths to go on. A carelessly phrased statement by a physician sometimes boomerangs on the profession, coming back so grossly distorted that it is far from recognizable.

Offhand, a number of instances come to mind. There is the physician who made a casual remark questioning the efficacy of the required premarital physical examination because of the possibility of false reactions. The young man to whom he was speaking gained a wrong impression, and he embellished the original slightly in retelling. By the time the comment had circulated considerably, it had become a flat assertion that no laboratory is reliable and the new law a failure. Any properly informed person knows these statements to be untrue.

A young lady of more than average intelligence quoted a physician as saying that within six months Ohio would have socialized medicine and the whole thing would be run by the State through its Division of Insurance. A little investigation showed that she had heard the doctor talking about the prospect of medical service plans being established under Ohio's enabling act. What he had said was probably accurate, but he apparently failed to make it clear.

Of course, there will always be wild rumors and unfortunate rumors about anything as romantically fascinating as medicine. To suggest that there may be a plan for ending them would be ridiculous. But this emphasizes the importance of giving full facts to the inquisitive layman. Medicine is losing much of its esoteric qualities, and for the good of the profession the public's knowledge about it must be accurate. Here is a public relations job for the individual physician. Let him be clear, concise, and complete in his casual conversations with laymen about things of importance to his profession.

Pat on the Back for the County Society Secretary

This is an accolade for the man who performs one of the most important but thankless jobs in medical organization—the county society secretary.

Year-end society elections throw a momentary spotlight on his position, but for the next 12 months he performs his duty in the relative obscurity of behind-the-scenes desk work. In some counties he is a veteran, re-elected year after year by his colleagues because they know he is willing to make personal sacrifices for the good of his profession. In other counties he is a newcomer, elevated to the post because the society members believe he can be relied on to carry out the organization's many paper-work details.

For the president there is limelight, prestige, and the gratification which comes from being the key man in local medical affairs for a brief time. For councilors and committee chairmen there are questions of policy to be considered and acted upon. For the secretary there are bulletins from the State Association to be transmitted, there is correspondence with the State Association and *The Journal* to keep up, there are membership records to keep straight.

In terms of telephone communications the secretary's job is like a switchboard. Through it passes the vital business which keeps the society alive. Through it the wires are kept clear and traffic is kept moving. It is not a job on which lip service is of much value. The man who fills this job deserves the complete cooperation of all members of his society.

Regulation Governing Narcotic Prescriptions Must Be Observed

According to a bulletin issued by the president of the Cincinnati Academy of Medicine, a number of Cincinnati druggists have requested that the attention of physicians be called to regulations regarding the filling of narcotic prescriptions which must be strictly obeyed by all druggists.

One section of the narcotic regulations, covering the complaints which were filed, is quoted in the bulletin. That section, reading as follows, should be complied with by all Ohio physicians:

"**Who may issue.** A prescription for narcotic drugs may be issued only by a physician, dentist, veterinary surgeon, or other practitioner who is duly registered, or an exempt official. . . . **Telephone orders:** The furnishing of narcotics pursuant to telephone advice of practitioners is prohibited, whether prescriptions covering such orders are subsequently received or not, except that in an emergency a druggist may deliver narcotics through his employee or responsible agent pursuant to a telephone order, provided the employee or agent is supplied with a properly prepared prescription before delivery is made, which prescription shall be turned over to the druggist and filed by him as required by law."

New Regulations for Reporting Stillbirths Are Announced

Local registrars of vital statistics have been notified by the State Department of Health that effective January 1, 1942, all stillbirths shall be reported on the new stillbirth certificates, in place of separate certificates of birth and death as heretofore required. A stillborn child is defined as "an infant of at least four and one-half months of uterogestation whose sex can be determined, which after complete expulsion does not give evidence of heart action, breathing or movement of voluntary muscles."

The regulations require that a stillborn child shall not be interred, deposited in a vault or tomb, cremated or otherwise disposed of until a certificate of stillbirth has been filed and a burial permit issued by the local registrar of the district in which the stillbirth occurred or the body is found.

Physicians are requested by the State Department of Health to fill out the medical portion of the certificates carefully and accurately. A stillbirth certificate is a permanent legal record which will be used as a basis for compiling statistical information by the State Department of Health, in collaboration with the U. S. Children's Bureau, in an effort to reduce the number of stillbirths in Ohio.

Supplies of the new certificates have been sent to the local registrars of vital statistics for distribution to funeral directors in the various registration districts.

Coming Meetings

Ohio State Medical Association, Columbus, April 28-30.

American Medical Association, Atlantic City, June 8-12.

American Academy of Orthopedic Surgeons, Atlantic City, N. J., Jan. 11-15.

American College of Physicians, St. Paul, April 20-24.

American Congress on Obstetrics and Gynecology, St. Louis, April 6-10.

Annual Congress on Industrial Health, Chicago, Jan. 12-13.

Fourth Annual Forum on Allergy, Detroit, Jan. 10-11.

Ohio Women's Field Army Presents Cancer Institute at Cleveland

Approximately 135 persons attended an Institute on Cancer presented by the Ohio Division of the Women's Field Army, American Society for the Control of Cancer, at the Cleveland Health Museum, Tuesday afternoon, November 25. Dr. Edgar P. McNamee, Councilor for the Fifth District of the Ohio State Medical Association, presided, assisted by Mrs. Marguerite G. Tremaine, vice-commander of the Army for Greater Cleveland. Greetings were extended by Dr. Roscoe D. Leas, president of the Cleveland Academy of Medicine.

Following brief remarks by Dr. McNamee on the subject of cancer, especially the death rate in Ohio and the objectives of the Women's Field Army, the following program was presented: "Medical Aspects of Cancer". Dr. Clyde L. Cummer, associate clinical professor of dermatology and syphililogy, Western Reserve University School of Medicine; "Social Service for Cancer Cases", Miss Mary K. Fisher, medical case work supervisor, Cuyahoga County Relief Bureau; "Local Accomplishments of the Women's Field Army Project", Miss Rosemary Geary, medical social worker; "The State Program in the Fight Against Cancer", Miss Bell Greve, state commander, Women's Field Army. The motion picture "Choose to Live" was then shown.

At the conclusion of the program the audience was conducted through the Cleveland Health Museum and attention directed to the special exhibit on cancer prepared for the meeting by Dr. Bruno Gebhard, director of the Museum. Some of the material included in the exhibit was furnished by the American Medical Association. Tea was served after the inspection trip. Sponsors of the meeting were pleased with the attendance and with the reception accorded the program.

Toledo Academy Building Remodeled

The Academy of Medicine Building, home of Toledo physicians for 18 years, is being completely redecorated and renovated. Improvements include a new furnace and stoker and a new roof. An amplifying system has been installed in the auditorium, and a new 16 m.m. motion picture projector and other equipment purchased. Originally housing several commercial enterprises in addition to the Academy offices, the building is now devoted entirely to professional functions. It houses the executive offices of The Academy of Medicine of Toledo and Lucas County; The Physicians and Dentists Credit Association, sponsored by the Academy; a medical library consisting of 18,000 volumes and receiving 78 monthly periodicals; and a telephone service exchange used by over 130 physicians. The auditorium on the second floor is used for scientific meetings. There is a large recreation room in the basement.

In Memoriam

Charles Barber Ballard, M.D., Marietta; Miami Medical College, Cincinnati, 1889; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died November 27. Dr. Ballard first practiced in Belpre, and after ten years there, located in Marietta in 1900. He retired in 1936. Dr. Ballard was a member of the Masonic Order, Presbyterian Church, Knights of Pythias and the Elks. His widow survives.

Kenneth Daniel Blackfan, M.D., Boston, Mass.; Albany Medical College, 1905; aged 58; member of the Massachusetts Medical Society; former member of the Ohio State Medical Association; Fellow of the American Medical Association, Association of American Physicians, American Pediatric Society, Association of American Physicians and the American Society for Clinical Investigation; died November 29. Dr. Blackfan was professor of pediatrics at the University of Cincinnati College of Medicine from 1920 to 1923. Since that time he had been professor of pediatrics at Harvard University Medical School. Surviving are his widow and his mother.

Edward Oliver Bonsteel, M.D., Cleveland; Cleveland-Pulte Medical College, 1903; aged 73; died November 5. Dr. Bonsteel practiced in Cleveland for 38 years. During World War I he was a captain in the Medical Corps of the U. S. Army. Dr. Bonsteel was a member of the American Legion and the Kiwanis Club. Surviving are his widow, two daughters, four sons and a sister.

Albert C. Buell, M.D., Cleveland; Cleveland University of Medicine and Surgery (Homeopathic), 1880; aged 90; died November 10. Dr. Buell had practiced in Cleveland for over 60 years. He was active in state and national homeopathic societies. Two daughters survive.

J. Purcell Haynes, M.D., Toledo; Dartmouth Medical College, Hanover, N. H., 1888; aged 75; died November 17. After one year of practice in Brooklyn, Dr. Haynes opened an office in Toledo, where he practiced for over 50 years. His widow survives.

S. Dwight Stevenson, M.D., Columbus; Medical College of Ohio, Cincinnati, 1890; aged 75; member of the Ohio State Medical Association and the American Medical Association; died November 26. Dr. Stevenson practiced in Columbus for 33 years. He was formerly located in Wilmington. Dr. Stevenson was a member of the Masonic Order and the Methodist Church. Surviving are his widow, a daughter and two brothers.

SUPREME SACRIFICE

First Lieutenant Charles Joseph Young, M.C., U.S. Army, Cincinnati; University of Cincinnati College of Medicine, 1931; aged 34; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 16, in an army airplane crash near Montgomery, Ala. Dr. Young was the first member of the Ohio State Medical Association to give his life for the country during the present war. He had been on active duty at the Basic Flying School of the U.S. Army at Montgomery, Ala., since last June. After serving his internship at Jewish Hospital, Cincinnati, Dr. Young undertook special training in obstetrics at the Chicago Lying-In-Hospital. He had practiced in Cincinnati for nearly ten years. Dr. Young was a member of the Masonic Order and Phi Delta Epsilon. Surviving are his father, three sisters and two brothers.

William Silas Hewitt, M.D., Cincinnati; University of Michigan Medical School, Ann Arbor, 1895; aged 72; died November 9. Dr. Hewitt practiced in Cincinnati for 46 years. He was a member of the Masonic Order. His widow survives.

Herschel G. Pugh, M.D., Armstrong Mills; Starling Medical College, Columbus, 1900; aged 76; died December 2. Dr. Pugh practiced in Clarington, Monroe County for four years, and for 36 years in Belmont County. He was a member of the Christian Church. His widow, two sons and a brother survive.

Emma Scott, M.D., Westerville; Woman's Medical College, Cincinnati, 1893; aged 74; died December 17. Dr. Scott was a medical missionary in India for 12 years, returning to this country in 1909 because of illness. She was a member of the Methodist Church. A sister and two brothers survive.

Cincinnati—New officers of the Cincinnati Society of Neurology and Psychiatry are: Dr. E. A. Baber, president; Dr. A. W. Foertmeyer, vice-president; Dr. Howard D. Fabing, secretary-treasurer. At a meeting of the society December 9, Dr. Albert B. Sabin discussed congenital toxiplasmosis, a recently recognized disease (internal hydrocephalus, chorioretinitis, cerebral calcification, convulsions, mental retardation and other signs).

Medical Board Examinations Given in Columbus, Dec. 2-4; Results To Be Announced Jan. 6; Questions Asked

THIRTY-THREE graduates of medical schools were examined for licenses to practice medicine and surgery in Ohio, at the Mid-Winter meeting of the State Medical Board, December 2-4, at Columbus.

Licenses to practice osteopathy and surgery were sought by 15 applicants. Examinations for certificates of limited practice were taken by 28 mechano-therapists, 6 chiropractors, 35 masseurs, 4 chiropodists and 4 cosmetic therapists.

Results of the examinations will be announced at a meeting of the State Medical Board to be held in Columbus, January 6.

Following are the questions asked those who were examined for licenses to practice medicine and surgery:

ANATOMY

1. Describe the vermiforn appendix in detail.
2. Describe the ligaments of the knee joint.
3. Name the muscles of the inner and outer cones of the shoulder, listing the origin and insertion of each.
4. Describe or make a schematic drawing of the blood supply of the face.
5. Give the origin exit from the skull course and distribution of the glosso-pharyngeal nerve.

PHYSIOLOGY

1. Compare the results of incompetence or failure of the left side of the heart and the right side of the heart.
2. Discuss liver function. (Not over two hundred words).
3. Give the function of: (a) bicuspid valves; (b) the iris; (c) the sebaceous glands; (d) the diaphragm; (e) the ductus deferens.
4. What is the nerve control of the heart?
5. Give the location and discuss the functional significance of the motor area of the cortex.
6. Give the physiological significance of the hypothalamus for water balance.
7. Discuss the eye as a camera.
8. What are the functions of the spinal fluid?
9. Define and characterize physiologically: (a) progestin; (b) cortin.
10. Discuss the part played in digestion in the mouth before deglutition.

DIAGNOSIS

1. Differentiate typhoid, malaria and acute rheumatic fever. Give physical and laboratory findings.
2. Define subacute bacterial endocarditis and carditis.
3. Differentiate subacute thrombo-phlebitis of lower extremities and erythema modosum in same areas.
4. Give findings in diabetes mellitus, diabetes insipuidus and so-called renal diabetes.
5. Define nystagmus, strabismus, also conditions in which each is found.
6. Describe heart block, auricular fibrillation and Adams-Stokes syndrome.
7. Differentiate symptoms of ovarian cyst with twisted pedicle, intussusception of small bowel and acute appendicitis.
8. Differentiate inguinal hernia and adenitis of same region.
9. Differentiate sacular aneurism of upper thoracic aorta and dermoid cyst in mediastinum in same region.
10. Describe and differentiate brachial neuritis and true angina pectoris.

CHEMISTRY

1. In examination of gastric contents, give chemical test for presence of: (a) blood, (b) morphine, (c) arsenic.

2. What are the products of oxidation of: (a) a primary alcohol, (b) a secondary alcohol, (c) a tertiary alcohol.

3. What is acidosis? Under what conditions dose it occur?. Discuss its prevention.

4. Name one soluble and one insoluble salt of each of the following: (a) mercury, (b) lead, (c) silver, (d) barium, (e) arsenic.

5. Give source and function of the following vitamins: A, B, C, D and G.

MATERIA MEDICA AND THERAPEUTICS

1. What is the therapeutic action of the following drugs on the heart: (1) potassium iodide, (2) caffeine, (3) aconite, (4) nux vomica, (5) morphine?
2. Discuss the toxicology of: (1) oxygen, (2) camphor, (3) phosphorus, (4) oil of chenopodium, (5) sulfathiazole.
3. Name two drugs having opposite effects on the coronary arteries. Give adult dose of each.
4. Define: (a) vitamin, (b) hormone, (c) alkaloid, (d) enzyme, (e) epispastic.
5. What are the therapeutic uses of bismuth? Name three preparations in common use and give adult dose of each.
6. Name five urinary tract disinfectants, for oral administration, giving adult dose of each.
7. What is the dose of atropine sulphate for a three-year-old child of average weight? Give rule for determining same.
8. Name five thrombo-plastic agents and give dose of each.
9. What are the therapeutic uses of Metrazol, Dionine, Antimony?
10. Write a prescription for chronic bronchitis, using three or more drugs. Do not sign name.

MATERIA MEDICA

Homeopathic

1. Compare bryonia and tartar emetic in pneumonia.
2. Give five medicines and their characteristic symptoms indicated in influenza.
3. Compare in diarrhea (a) arsenicum alba; (b) china officinalis; (c) ipecacuanha; (d) sulphur; (e) veratrum viride.
4. Give 10 leading symptoms of nux vomica.
5. Give differentiating symptoms of (a) aconite, (b) ferrum phosphorica, (c) hepar sulphur, (d) mercurious sol., and (e) pulsatilla in acute "head cold".
6. What is meant by potentization of a remedy. Illustrate.
7. Name two remedies that may be indicated in erysipelas and give leading symptoms of each.
8. Write a prescription for six doses of morphine for a case of inoperable cancer. **Do not sign your name.**
9. How are tinctures made?
10. How are tinctures made?

MEDICINE

1. Give the etiology, symptoms and treatment of bacterial endocarditis.
2. Discuss the etiology, symptoms and treatment of fluid in the pleural cavity: (a) serum; (b) pus.
3. Given a case of a young man with a persistent afternoon elevation of temperature, cough, positive (t.b.) sputum and signs of a small cavity in the right apex. Discuss the probable history and future management of such a case.
4. Give etiology, symptoms and treatment of a case of pyelitis in a child (female) of six years.
5. Outline the treatment of acute rheumatic fever in a child of eight years.
6. Give the subjective symptoms and objective signs in a patient with pernicious anemia. Give treatment.
7. Discuss the post-febrile treatment of a case of poliomyelitis with paralysis affecting one leg in a school boy of 10 years.
8. Discuss the etiology, symptoms and treatment of a case in which the patient complains of "dyspepsia"; the examination of the stomach contents showing merely a persistent hyperchlorhydria.
9. Name two common causes of multiple neuritis. Give symptoms and treatment in patients affected by such agents or conditions.
10. Describe the onset, symptoms, progress and treatment in a non-fatal attack of coronary thrombosis.

BACTERIOLOGY, PATHOLOGY AND HYGIENE

1. Discuss the laboratory examination by which you would endeavor to recognize an inflammatory infection with (a) good body resistance; (b) poor body resistance.

2. Define leucopenia; eosinophilia. Name two diseases characterized by such blood finding.

3. Describe the causative agent and how recognized by laboratory methods of (a) meningitis; (b) typhoid fever; (c) diphtheria; (d) rabies; (e) tuberculosis.

4. Define thrombus, embolus and infarct. Give illustrative cases of each and discuss the causation and results.

5. What is generally regarded as the causative agent of acute rheumatic fever? At what age period is it most frequent and describe the local pathology of its common sequel.

6. Describe the pathologic changes found in syphilis of

the heart and aorta and discuss their relation to cardiac failure.

7. Describe the pathology of tabes dorsalis and explain its relation to (a) the change in the knee reflex, (b) the characteristic gait of such cases.

8. A specimen of well water is submitted to you for an opinion as to its suitability for drinking purposes. How would you proceed to determine whether it is suitable or not?

9. What is supposed to be the cause of simple goitre, and what preventive measure might you recommend in a region where it is prevalent?

10. Define immunization, (a) active, (b) passive. For men entering army service, name five diseases against which immunization should be employed and indicate in each whether the immunization is active or passive.

SPECIALTIES

1. Give the cause, most common location and treatment of nasal polypus.

2. What is allergy? Give method of determining allergy.

3. What is the Babinsky sign and what does it denote?

4. Given the case of a baby one month old, the mother having ceased to lactate, outline an artifiical feeding program.

5. Describe tertiary cutaneous lesion of syphilis.

SURGERY

1. What precaution should be taken preliminary to an operation on a patient with obstructive jaundice?

2. Give the cause and treatment of scoliosis.

3. Discuss the etiology, symptoms, diagnosis and treatment of subacromial bursitis.

4. Name the surgical conditions in which one would expect (a) acutely increased intracranial tension, (b) chronically increased intracranial tension. Discuss briefly the management of each. (Omit operative technic).

5. Discuss fracture of the os calcis.

6. Give the causes, differential diagnosis and treatment of pyogenic lymphadenitis of the cervical lymph nodes.

7. Give the pathology, symptoms and differential diagnosis of internal hemorrhoids. Discuss briefly the management of such a case. (Omit operative technic).

8. Discuss the significance of adenomas and hyperplasias of the parathyroids.

9. Name the more common tumors of the testes. Indicate the physiological manifestations, distribution of metastises and the management. (Omit operative technic).

10. Discuss postoperative pulmonary embolism.

OBSTETRICS AND GYNECOLOGY

1. What are the predisposing causes, diagnosis and treatment of extra-uterine pregnancy?

2. When and how should the accoucheur interfere with an occiput posterior position?

3. Discuss sources and modes of puerperal infection.

4. Discuss causes of abortion classified as: (a) fetal, (b) maternal, (c) paternal.

5. Name five causes of shock in a parturient woman, during or shortly after labor. Briefly outline treatment of each condition.

Opinions of Attorney General

Two opinions issued recently by Attorney General Thomas J. Herbert are of special interest to physicians. The syllabus of each follows:

No. 4262—A coroner in a county of less than 100,000 population does not vacate his office because of absence with the military forces of the United States. In such a county a justice of the peace shall have the powers and the duties of the coroner to hold inquests in the presence of the sheriff or a deputy sheriff in the place of a coroner while that person is temporarily absent in the military service of the United States.

No. 4380—District boards of health of general health districts may by order or regulation in the interest of public health or for the prevention or restriction of disease, provide for the inspection of trailer camps and impose reasonable standards in connection therewith. The costs of such inspection and the issuance of a permit certifying that there has been compliance with the standards may be charged to the operators of said camps.

Dr. Spies Wins Award

The 1941 Award of Distinction of the American Pharmaceutical Manufacturers' Association was presented to Dr. Tom D. Spies, associate professor of medicine, University of Cincinnati College of Medicine and director of the Hillman Hospital Nutrition Clinic, Birmingham, Ala., at a meeting in Washington, D. C., December 8. Dr. Morris Fishbein, Editor of *The Journal of the American Medical Association,* made the presentation. The award went to Dr. Spies "in recognition of his outstanding contributions to our knowledge of the value of the B-complex vitamins, particularly nicotinic acid, thiamine and riboflavin, as pharmaceuticals important in the treatment of diseases."

Recent Marriages

Recent marriages of Ohio physicians include the following: Mrs. Henrietta Micheles Norris, Toledo, and Dr. J. C. Boyce, Fremont; Miss Virginia Louella Sharpee, Rio, Wisc., and 1st Lt. David M. Creamer, Bellaire; Miss Katherine Comey, Cambridge, Mass., and Dr. Lloyd E. Morris, Jr., Columbus; Capt. R. R. Pliskin, Akron, and Miss Evelyn M. Capp, Mars, Pa.; Miss June C. King, and Dr. Robert M. Rawdon, Cincinnati; Miss Geraldine Giles, New Albany, Ind., and Dr. Lawrence A. Taugher, Waverly Hills, Ky.; Miss Helen Marie Reeves, Youngstown, and Lt. Frederick L. R. Ringwald, Fort Brass, N. C.

Postgraduate Obstetrics Courses

Five postgraduate courses in obstetrics, each of four weeks duration, will be offered by the University of Chicago, at the Chicago Lyin-in-Hospital between January 12 and June 6, 1942. These are sponsored by the Illinois State Department of Health and the Children's Bureau of the U. S. Department of Labor. The course is run on a non-profit basis. A deposit of $25 is required on registration, $10 of which is refunded at the completion of the course. Additional information and application blanks may be obtained by request from Postgraduate Course, Department of Obstetrics and Gynecology, 5848 Drexel Avenue, Chicago, Illinois.

Prize for Medical Essay

The Mississippi Valley Medical Society offers annually a cash prize of $100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner. Contestants must be members of the American Medical Association who are residents of the United States. Contributions must be submitted not later than May 1, 1942. Further details may be secured from Dr. Harold Swanberg, secretary, Mississippi Valley Medical Society, Quincy, Ill.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

Dr. Leon Schiff, Cincinnati, spoke on "Gastroscopy" at a meeting of the Butler County Medical Society, November 27, at the Nurses' Home, Mercy Hospital, Hamilton. A Committee on Medical Preparedness was appointed and its responsibilities discussed. The work of the National Physicians' Committee was endorsed and a donation authorized for its support.—F. W. Brosius, M.D., president.

"Riding the Waves of the World Storm", was the topic discussed by Bennet Chapple, assistant to the president, American Rolling Mill Company, at a meeting of the Woman's Auxiliary, November 18, at the Hotel Manchester, Middletown. Guests included officers of the Butler County Medical Society. Mrs. C. F. Macready, Monroe, was named president-elect.—Mrs. C. I. Stafford, president.

CLERMONT

The following officers have been chosen by the Clermont County Medical Society for 1942: Dr. Warren E. Thomas, Milford, president; Dr. F. S. Skeen, Batavia, vice-president; Dr. J. M. Coleman, Loveland, secretary-treasurer; Dr. Carl Minnig, Williamsburg, chairman, legislative committee; Dr. Allan B. Rapp, Owensville, chairman, public relations committee; Dr. Thomas, delegate; Dr. Coleman, alternate.—J. M. Coleman, M.D., secretary.

CLINTON

Officers of the Clinton County Medical Society for 1942 are: Dr. William L. Wead, Sabina, president; Dr. Charles Wm. Matthews, New Vienna, vice-president; Dr. James E. Rose, Sabina, secretary-treasurer; Dr. Frank A. Peelle, Wilmington, chairman, legislative committee; Dr. Robert Conard, Wilmington, chairman, medical preparedness committee; Dr. Conard, delegate; Dr. Elizabeth Shrieves, Wilmington, alternate.—James E. Rose, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during December:

December 2—Program presented by the Cincinnati Department of Health, Dr. William Muhlberg, president of the Board of Health, presiding. "Heart Disease in Middle Age—A Public Health Problem", Dr. Bernard Schwartz, director, heart station, Cincinnati Department of Health. "The Function of the Public Laboratory", Otto P. Behrer, superintendent laboratory, Cincinnati Department of Health; "The Prevention of Tularemia—A Progress Report", Dr. Lee Foshay, professor of bacteriology, University of Cincinnati College of Medicine; "The Finding and Prevention of Tuberculosis", Dr. Harry J. Wittenberg, supervising physician, health center, Cincinnati Department of Health; "Syphilis and Gonorrhea", Dr. Carl A. Wilzbach, city health commissioner, Cincinnati.

December 16—General Hospital Meeting. Case Reports. "Case for Differential Diagnosis—Aortic Aneurism or Hodgkins Disease?", Dr. Richard W. Vilter; "Leukopenia and Anemia after Therapy—Differential Diagnosis", Dr. Eugene H. Sterne, Jr.; "Carcinoma of Ampulla of Vater Treated by Resection of Duodenum and Head of Pancreas", Dr. Max M. Zinninger; "Infected Burns of Both Legs Complicated by Hemorrhage Treated by Zinc Peroxide", Dr. William A. Altemeier; "Bullet Wound of Right Ventricle with Migration of Descending Aorta; Recovery", Dr. Paul I. Hoxworth; "The Cure of Symptoms in Two Patients With Raynaud's Syndrome by Estrogens", Dr. Louis G. Herrmann; "Disseminated Lupus Erythematosus", Dr. Norbert P. Ringleman, with discussion by Dr. Leon Goldman; "Epidural Abscess, First Diagnosed as a Dislocated Intervertebral Disc", Dr. Joseph P. Evans.—Bulletin.

HIGHLAND

At a meeting at Hillsboro on December 3, the Highland County Medical Society elected the following officers for the ensuing year: Dr. J. C. Larkin, Hillsboro, president; Dr. J. D. McBride, Hillsboro, vice-president; Dr. W. B. Roads, Hillsboro, secretary-treasurer; Dr. Larkin, chairman, legislative committee; Dr. McBride, chairman, committee on medical preparedness; Dr. H. W. Chaney, Sugartree Ridge, delegate; Dr. J. H. Frame, Highland, alternate.—W. B. Roads, M.D., secretary.

The Woman's Auxiliary held their regular luncheon meeting at the home of Mrs Edward Powell, Hillsboro, December 3. Mrs. Helen Haughton, Columbus, spoke on "Cancer Control," and the motion picture "I Choose to Live," was shown.—Mrs. W. B. Roads, secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

DARKE

Dr. Thomas P. Sharkey, Dayton, spoke on "Diabetes", at the meeting of the Darke County Medical Society, December 16, at the Wayne Hospital, Greenville.—W. D. Bishop, M.D., secretary.

GREENE

Dr. H. E. Ray gave an excellent illustrated lecture on "Disease of the Eye", at a meeting of

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the Greene County Medical Society, December 4, at Xenia.

The following officers were elected for 1942: Dr. Wm. T. Ungard, Xenia, president; Dr. H. C. Schick, Xenia, vice-president; Dr. R. C. Henderson, Xenia, secretary-treasurer; Dr. R. R. McClellan, Xenia; Dr. C. W. Miller, Osborn, and Dr. A. D. Ritenour, Jamestown, members of board of censors; Dr. P. D. Espey, legislative committeeman; Dr. H. C. Messenger, Xenia, delegate; Dr. C. G. McPherson, Xenia, alternate. Dr. B. R. McClellan was appointed to represent the society as chairman of the local Medical-Health Defense Committee.—Donald F. Kyle, M.D., retiring secretary.

MIAMI

A motion picture, "Pneumonia, Diagnosis and Treatment", was shown through the courtesy of Lederle Laboratories at a meeting of the Miami County Medical Society, December 5, at Stouder Hospital, Troy.

The society elected the following officers for 1942: Dr. Paul E. Foy, Troy, president; Dr. M. C. Kiser, Tipp City, vice-president; Dr. G. A. Woodhouse, Pleasant Hill, secretary-treasurer; Dr. I. C. Kiser, Piqua, legislative committeeman; Dr. Woodhouse, delegate; Dr. E. R. Irvin, Bradford, alternate.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Claude S. Beck, Cleveland, spoke on "Coronary Disease and Angina Pectoris Treated by Operation", at a meeting of the Montgomery County Medical Society, December 5, at the Nurses' Home, Miami Valley Hospital, Dayton.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

AUGLAIZE

At a meeting of the Auglaize County Medical Society, December 11, at Wapakoneta, Dr. S. E. Flook, Dayton, spoke on "Fractures of the Forearm". During the business session, Dr. Guy E. Noble, Third District Councilor, discussed "Local Significance of the Enabling Act".

The following officers were elected for the ensuing year: Dr E. F. Heffner, Wapakoneta, president; Dr. T. H. Will, Minster, vice-president; Dr. Clyde W. Berry, Wapakoneta, secretary-treasurer; Dr. Guy E. Noble, St. Marys, chairman legislative committee; Dr. Heffner, chairman, committee on medical preparedness; Dr. Chas. C. Berlin, Wapakoneta, delegate; Dr. E. P. Sparks, New Knoxville, alternate.—Chas C. Berlin, M.D., retiring secretary.

CRAWFORD

Dr. William D. Inglis, Columbus, spoke on "Modern Technique in Obstetrics", at a meeting of the Crawford County Medical Society, December 1, at the Hotel Talbott, Galion.—News clipping.

LOGAN

Officers of the Logan County Medical Society for 1942 are: Dr. R. A. Firmin, Zanesfield, president; Dr. F. B. Kaylor, Bellefontaine, vice-president; Dr. O. C. Amstutz, Bellefontaine, secretary-treasurer.—F. B. Kaylor, M.D., retiring secretary.

At its meeting at the Hotel Ingalls, Bellefontaine, on December 5, the society voted that all members or former members who had practiced medicine for 50 years be made honorary members.

Dr. O. C. Amstutz, who recently attended the meeting of the American College of Surgeons at Boston, Mass., gave some of the high points of the meeting. At the close of the meeting a motion picture, "Spinal Cord and Cauda Equina Injury", was shown.—F. B. Kaylor, M.D., retiring secretary.

MARION

Dr. Wiley L. Forman, Columbus, talked on "Minor Psychoses", at a meeting of the Marion County Academy of Medicine, November 4, at the Marion City Hospital.—News clipping.

The following Marion physicians have been elected officers of the society for 1942: Dr. J. G. McNamara, president; Dr. F. L. Thomas, vice-president; Dr. F. W. Rea, secretary; Dr. Clovis J. Altmaier, treasurer; Dr. Thomas H. Sutherland, chairman, legislative committee; Dr. Neuman Sifritt, chairman, committee on medical preparedness; Dr. H. K. Mouser, delegate; Dr. Carl W. Sawyer, alternate.—Frederick W. Rea, M.D., secretary.

SENECA

"The Treatment of Diabetes", was the subject discussed by Dr. F. B. Peck of Eli Lilly & Company, at a meeting of the Seneca County Medical Society, December 11, at the Shawhan Hotel, Tiffin.

The following Tiffin physicians were elected officers of the society for 1942: Dr. Edmund F. Ley, president; Dr. Charles W. Consolo, vice-president; Dr. N. E. Williard, secretary-treasurer; Dr. Ralph E. Hershberger, chairman, legislative committee; Dr. R. C. Chamberlain, chairman, committee on medical preparedness; Dr. R. R. Hendershott, delegate; Dr. Chamberlain, alternate.—N. E. Williard, M.D., secretary.

At a meeting of the Woman's Auxiliary, November 13, at the home of Mrs. Wade Chamberlain, Tiffin, the following new officers were elected: Mrs. W. Gordon Hartnett, Fostoria, president; Mrs. R. R. Hendershott, Tiffin, president-elect; Mrs. Paul Leahy, Tiffin, vice-president; Mrs. F. H. Pennell, Fostoria, secretary; Mrs. J. L. Murphy, Fostoria, treasurer.—News clipping.

VAN WERT

The Van Wert County Medical Society has elected the following Van Wert physicians officers

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Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

DEFIANCE

At a meeting of the Defiance County Medical Society, December 12, at Defiance, the following officers were elected for the ensuing year: Dr. J. S. Hull, Hicksville, president; Dr. John U. Fauster, Jr., Defiance, vice-president; Dr. E. P. Mitchell, Defiance, secretary-treasurer; Dr. George W. DeMuth, Sherwood, chairman, legislative committee and chairman, committee on medical preparedness; Dr. D. J. Slosser, Defiance, delegate; Dr. P. B. Newcomb, Defiance, alternate.—E. P. Mitchell, M.D., secretary.

FULTON

Officers of the Fulton County Medical Society for 1942 are; Dr. C. F. Hartmann, Wauseon, president; Dr A. M. Wilkins, Delta, vice-president; Dr. Geo. McGuffin, Pettisville, secretary-treasurer; Dr. R. W. Reynolds, Fayette, chairman, legislative committee; Dr. E. A. Murbach, Archbold, chairman, committee on medical preparedness; Dr. C. Harold Heffron, Metamora, delegate; Dr. T. F. Smyth, Lyons, alternate.—George McGuffin, M.D., secretary.

HENRY

The Henry County Medical Society has elected the following officers for 1942: Dr. D. A. Wiener, Deshler, president; Dr. W. R. Liebschner, Deshler, vice-president; Dr. L. E. Overhulse, Holgate, secretary-treasurer; Dr. J. R. Bolles, Napoleon, chairman, legislative committee; Dr. B. L. Johnson, Deshler, chairman, committee on medical preparedness; Dr. J. J. Harrison, Napoleon, delegate; Dr. Thomas Quinn, Napoleon, alternate.—L. E. Overhulse, M.D., secretary

LUCAS

The Toledo Academy of Medicine presented the following programs during December:

December 2-5—Seventeenth Annual Postgraduate Course. (Complete program published in the December, 1941, issue of *The Journal*, page 1205.

December 12—Section on Pathology, Experimental Medicine, and Bacteriology. "Symposium on Pulmonary Tuberculosis". "(1) Control and Case Findings", Dr. Howard Holmes; "(2) Medical Treatment", Dr. Paul M. Holmes; "(3) Surgical Treatment", Dr. Morris W. Selman. Discussion by Drs. W. A. Neill, R. H. Elrod, W. W. Stone and O. K. Muhme.

December 19—Medical Section. "An Analysis of Treatment Methods in Pulmonary Tuberculosis", Dr. Myron D. Miller, instructor in medicine, Ohio State University College of Medicine, Columbus.—Bulletin.

Dr. Maurice A. Schnitker spoke on "Nutrition", at a meeting of the Woman's Auxiliary, December 5, at the Woman's Building, Toledo.—Bulletin.

PUTNAM

Officers of the Putnam County Medical Society for 1942 are: Dr. H. H. Sink, Columbus Grove, president; Dr. C. W. Bird, Continental, vice-president; Dr. Carl H. Zinsmeister, Ottawa, secretary-treasurer; Dr. W. B. Recker, Leipsic, chairman, legislative committee; Dr. E. Blackburn, Kalida, delegate; Dr. J. R. Echelbarger, Ottawa, alternate.—Milo B. Rice, M.D., retiring secretary.

Dr. Fred G. Maurer, Lima, was the speaker at a meeting of society held at Ottawa, December 5. He discussed "Heart Disease in Its Commoner Clinical Aspects." Briefly mentioning the invaluable contributions made by workers in the research field, he reminded his hearers that, after

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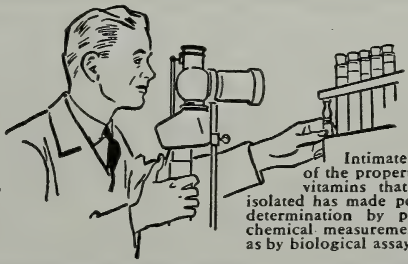

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all, prevention and treatment depend mainly upon early recognition, a common sense hygienic regime and a few simple and well recognized therapeutic agents. Contrary to ancient and popular prejudice, he said, alcohol is more often than not of positive benefit, both in treatment and prevention. As a prominent factor in causation he mentioned the overwork, worry and keyed-up habit of the typical American man of affairs. These men, he asserted, are all too often the early and unnecessary victims of coronary disease. Prevention and cure call for a somewhat radical change in habits of living and more leisurely employment of spare time, he concluded.—H. N. Trumbull, M.D., correspondent for *The Journal.*

WOOD

The regular meeting of the Wood County Medical Society was held November 27 in the Woman's Club building in Bowling Green. Instead of the usual scientific essay the program committee availed itself of the privilege of having Dr. Kenneth C. McCarthy, Toledo, who has been in London, England, for almost the entire past year, tell of his experiences in the war zone. The choice was a wise one. Dr. McCarthy is a keen observer and his peculiar position gave him many opportunities to see the English war activities from the inside and to make many unusual contacts. His material was well organized and there was certainly not a dull moment during his talk. The society feels, however, that Dr. McCarthy used only a very few of his large store of experiences and arrangements are already being made to have him again if a date can be edged into his program. A standing vote of thanks was tendered Dr. McCarthy after which the meeting adjourned.—D. R. Barr, M.D., correspondent for *The Journal.*

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Officers of the Ashtabula County Medical Society for 1942 are: Dr. H. K. Lynne, Jefferson, president; Dr. A. M. Mills, Ashtabula, vice-president; Dr. W. T. Lowry, Jefferson, secretary-treasurer; Dr. R. B. Wynkoop, Ashtabula, chairman, legislative committee.—Noble F. Crandall, M.D., secretary.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during December:

December 5—Clinical and Pathological Section. "A Case of Hyperparathyroidism", Dr. Theron Jackson; "Placenta Ablatio", Dr. G. H. Irvin; "Carcinoma of the Penis in a Syphilitic", Dr. V. C. Laughlin; "Pyelophlebetic Abscesses of the Liver", Dr. B. B. Kimmel and Dr. E. A. Marshall; "A Case of Felty's Syndrome", Dr. Roswell Lowry and Dr. Edward Goodsit; "Unilateral Exophthalmos Due to Angiomatosis Retinae", Dr. W. A. Sommerfield and Dr. C. I. Thomas.

December 10—Medical Practice Section. "Symposium on Pain and Its Treatment". (a) Pain in "The Muscles and Extremities", Dr. L. N. Atlas; "The Heart and Pericardium", Dr. Harold Feil; "The Lungs and Pleura", Dr. R. C. McKay; "The Abdominal Cavity and Peritoneum", Dr. J. H. Lazzari; "The Head", Dr. W. J. Gardner; (b) "The Mechanism of Pain Production", Dr. H. D. Green.

December 12—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "The Effect of Separate Inoculation of Vaccine Virus and Immune Serum on the Protection Test", Dr. R. H. Green and Dr. R. F. Parker; "The Acute Effects of Venous Occlusion on Blood Flow in the Dog's Leg as Demonstrated by the Rotameter", Dr. W. H. Pritchard, Dr. E. F. Schroeder and Dr. A. S. Weisberger; "The Unreliability of the Thermostromuhr Method of Measuring Blood Flow", Dr. R. E. Shipley; Dr. Weisberger and Dr. Schroeder.

December 17—Obstetrical and Gynecological Section. "Clinical Experience with Stilbestrol", Dr. G. K. Folger; "Placenta Praevia", Dr. J. L. Reycraft and Dr. C. D. Platz. "The Gallbladder Disease and Pregnancy", Dr. L. H. Biskind and Dr. H. H. Pevaroff.

December 19—Downtown Academy Meeting. "Endocrine Treatment of Pituitary Disorders", Dr. Elmer L. Sevringhaus, professor of medicine, University of Wisconsin Medical School, Madison, Wisc.—Bulletin.

GEAUGA

The Geauga County Medical Society held six meetings during 1941. As so many Cleveland physicians have been called into military service, the Program Committee found it difficult to obtain speakers, so four of the meetings were devoted to the discussion of legislation affecting the practice of medicine, national defense problems and other matters brought to our attention by bulletins from the State Association office. At the May meeting, Dr. Isa Teed Cramton gave a paper on the timely subject, "Rhus Poisoning, Especially Dermatitis Venenata Caused by Poison Ivy". At the September meeting Dr. E. W. Recroft, Cleveland, gave a valuable paper on "New Aspects of Allergy and Their Treatment".

At the annual meeting held with Dr. W. C. Cory in Chardon, the following officers were elected: Dr. F. S. Basquin, Chardon, president; Dr. David A. Price, Chardon, vice-president; Dr. Isa Teed Cramton, Burton, secretary-treasurer; Dr. W. C. Cory, legislative committeeman; Dr. Lucy S. Hertzog, public relations committeeman.

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The delegate and alternate to the State Association will be appointed later.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. Elmer E. Kirkwood, Youngstown, superintendent, Mahoning County Tuberculosis Sanatorium, was the guest speaker at a meeting of the Columbiana County Medical Society, November 11, at Lisbon.—News clipping.

PORTAGE

Annual reports were given at a meeting of the Portage County Medical Society, December 4, at the Robinson Memorial Hospital, Kent. The address of the president, Dr. John M. Painter, Kent, was the main feature of the program. It was a well-prepared and instructive paper on "Chronic and Sub-acute Infections of the Upper Respiratory Passages".

The following officers were elected for 1942: Dr. E. T. Meacham, Kent, president; Dr. Elizabeth A. Leggett, Kent, vice-president; Dr. Emily J. Widdecombe, Kent, secretary-treasurer; Dr. L. W. Prichard, Ravenna, censor; Dr. Meacham, delegate; Dr. Leggett, alternate.—Emily J. Widdecombe, M.D., secretary.

STARK

A two-reel movie on "The Diagnosis and Treatment of Cancer of the Female Breast", was shown at a meeting of the Stark County Medical Society, December 4, at the Elks Club, Canton.—Clair B. King, M.D., secretary.

Fifty-five members attended a meeting of the Woman's Auxiliary, November 11, at the home of Mrs. Roy Clunk, Massillon. Mr. George Brumbaugh showed colored movies of Puerto Rico, where his son, Dr. Joseph Brumbaugh, is stationed.—News clipping.

SUMMIT

Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati, spoke on "Avitaminosis", at a meeting of the Summit County Medical Society, December 2, at the Mayflower Hotel, Akron.—Bulletin.

The following Akron physicians are officers of the society for 1942: Dr. J. G. Kramer, president; Dr. R. S. Friedley, president-elect; Dr. A. S. McCormick, secretary; Dr. O. P. Allen, treasurer; Dr. J. G. Blower, chairman, legislative commit-

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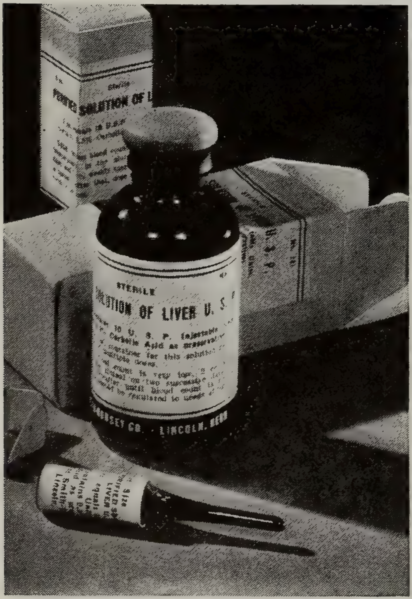

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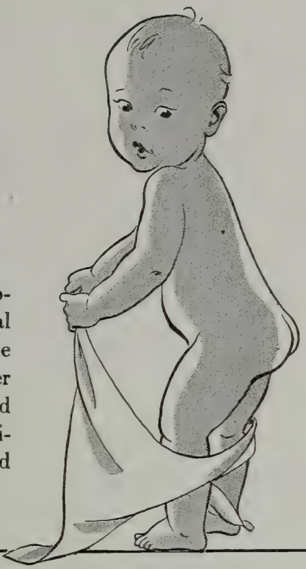

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TRUMBULL

Dr. L. J. Landay and Dr. D. Koskoff, Pittsburgh, discussed "Recent Advances in the Diagnosis and Treatment of Convulsive Seizures", at a meeting of the Trumbull County Medical Society, November 30, at the Hotel Warner, Warren.—News clipping.

"Hospital Activities" were discussed by Miss Clara Coleman, superintendent of the Warren City Hospital, at a meeting of the Woman's Auxiliary, November 11, at the Hotel Warner, Warren.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Dr. B. C. Deifenbach, Martins Ferry, read a very interesting paper on "Intravenous Anesthesia", at a meeting of the Belmont County Medical Society, December 11, at Bellaire.

The following officers were elected for the ensuing year: Dr. J. O. Howells, Bridgeport, presidnt; Dr. H. F. Wiedman, Bellaire, vice-president; Dr. C. W. Kirkland, Bellaire, secretary-treasurer; Dr. R. H. Wilson, Martins Ferry, chairman, legislative committee; Dr. F. P. Sutherland, Martins Ferry, chairman, committee on medical preparedness; Dr. Howell, alternate; Dr. Wiedman, alternate.—C. W. Kirkland, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. Harry E. LeFever, Columbus, spoke on "Lesions of the Spinal Cord", at a meeting of the Athens County Medical Society, November 11, at Nelsonville.—News clipping.

The society has elected the following officers for 1942: Dr. Byron Danford, Athens, president; Dr. L. A. Hamilton, Athens, vice-president; Dr. C. R. Hoskins, Athens, secretary-treasurer; Dr. E. LeFever, Glouster, and Dr. H. T. Phillips, Athens, legislative committeemen; Dr. B. R. Goldsberry, Athens, chairman, committee on medical preparedness; Dr. L. D. Robinson, Guysville, delegate; Dr. Danford, alternate.—C. R. Hoskins, M.D., secretary.

GUERNSEY

Members of the Guernsey County Medical Society were guests of the Wendt-Bristol Company, Columbus, at a dinner at the Hotel Berwick, Cambridge, December 4.

The following new officers were elected: Dr. M. J. Thomas, Cambridge, president; Dr. J. W. Camp, Cambridge, vice-president; Dr. M. S. Lawrence, Quaker City, secretary-treasurer; Dr. F. Gordon Lawyer, Cambridge, chairman, legislative committee.—M. J. Thomas, M.D., retiring secretary.

LICKING

Officers of the Licking County Medical Society for 1942 are: Dr. Russel H. Williams, Granville, president; Dr. Dale E. Roth, Newark, vice-president; Dr. R. G. Plummer, Newark, secretary-treasurer; Dr. G. A. Gressle, Newark, chairman, committee on medical preparedness; Dr. Gressle, delegate; Dr. Roland W. Jones, Newark, alternate.—John E. Hendricks, M.D., secretary.

MORGAN

The following physicians have been elected officers of the Morgan County Medical Society for 1942: Dr. E. Galen Rex, McConnelsville, president; Dr. C. V. Davis, Pennsville, vice-president; Dr. A. A. Tombaugh, McConnelsville, secretary-treasurer; Dr. C. E. Northrup, McConnelsville, chairman, legislative committee; Dr. Rex, chairman, committee on medical preparedness; Dr. Northrup, delegate; Dr. Tombaugh, alternate.—C. E. Northrup, M.D., retiring secretary.

WASHINGTON

Officers of the Washington County Medical Society for 1942 are: Dr. F. E. Eddy, Marietta, president; Dr. E. W. Hill, Jr., Marietta, vice-president; Dr. R. H. Sloan, Jr., Marietta, secretary-treasurer; Dr. J. F. Weber, Marietta, chairman, legislative committee; Dr. W. E. Radcliff, Caldwell, delegate; Dr. R. M. Meredith, Marietta, alternate.—Deane H. Northrup, M.D., retiring secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

JACKSON

Officers of the Jackson County Medical Society for 1942 are: Dr. W. R. Riddell, Jackson, presi-

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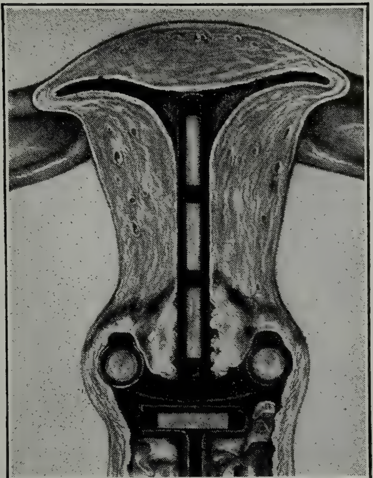

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PIKE

Officers of the Pike County Medical Society for 1942 are: Dr. Robert T. Leever, Waverly, president; Dr. I. P. Seiler, Piketon, vice-president; Dr. Mack E. Moore, Piketon, secretary-treasurer; Dr. W. L. McCaleb, Beaver, chairman, legislative committee; Dr. R. M. Andre, Waverly, delegate; Dr. A. M. Shrader, Waverly, alternate.—Mack E. Moore, M.D., secretary.

SCIOTO

Hempstead Academy of Medicine, Scioto County, has elected the following Portsmouth physicians officers for 1942: Dr. Carl G. Braunlin, president; Dr. H. Clyde O'Roark, vice-president; Dr. Sol Asch, secretary-treasurer; Dr. Jos. S. Rardin, chairman, legislative committee and committee on medical preparedness; Dr. G. R. Micklethwaite, delegate; Dr. Dow Allard, alternate.—Sol Asch, M.D., secretary.

VINTON

Officers of the Vinton County Medical Society for 1942 are: Dr. Herbert F. Kesinger, McArthur, president and delegate; Dr. H. D. Chamberlain, McArthur, secretary-treasurer and alternate.—H. D. Chamberlain, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

The following officers were elected at a meeting of the Fayette County Medical Society, December 4, at Washington C. H.: Dr. N. M. Reiff, Washington C. H., president; Dr. J. H. Persinger, Washington C. H., vice-president; Dr. James F. Wilson, Washington C. H., secretary-treasurer; Dr. A. D. Woodmansee, Washington C. H., legislative committeeman; Dr. James E. Thompson, Washington C. H., public relations committeeman; Dr. O. L. Wiseman, Jeffersonville, medical economics committeeman; Dr. Persinger, delegate; Dr. E. H. McDonald, Washington C. H., alternate.

Dr. C. C. Sherburne, Columbus, Tenth District Councilor, was present and gave a very interesting talk.—James F. Wilson, M.D., secretary.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during December:

December 1—"Mental Disorders Associated With Childbearing", Dr. David A. Boyd, Jr.,

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chairman, department of neurology and psychiatry, Indiana University School of Medicine, Indianapolis, Ind.

December 8—Section in General Medicine. Joint meeting with Central Ohio Academy of Pharmacy and Grant Hospital Medical Staff.

December 15—"The Challenge of Gastric Cancer: Diagnostic Aspects of Its Earliest Stages", Dr. George B. Eusterman, Rochester, Minn.—Bulletin.

KNOX

The Knox County Medical Society has elected the following officers for 1942: Dr. John R. Claypool, Mt. Vernon, president; Dr. Jerry O. Crist, Camp Shelby, Miss., vice-president; Dr. John C. Drake, Mt. Vernon, secretary-treasurer and chairman of committee on medical preparedness; Dr. James F. Lee, Mt. Vernon, chairman, legislative committee and delegate; Dr. E. V. Ackerman, Fredericktown, alternate.—John C. Drake, M.D., secretary.

ROSS

The following Chillicothe physicians have been elected officers of the Ross County Medical Society for 1942: Dr. O. L. Iden, president; Dr. E. Paul Shepard, vice-president; Dr. Ralph W. Holmes, secretary-treasurer; Dr. L. T. Franklin, chairman, legislative committee; Dr. Holmes, chairman, committee on medical preparedness; Dr. O. P. Tatman, delegate; Dr. Robert E. Quinn, alternate.—Ralph W. Holmes, M.D., secretary.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

LORAIN

Dr. Fred M. Sponseller, Elyria, gave an address in memory of the late Dr. A. S. McKittrick, at a meeting of the Lorain County Medical Society, December 9, at the Lorain Country Club. A historical sketch entitled "A Doctor of the Old School", was given by Dr. Geo. C. Jameson, Oberlin.—L. H. Trufant, M.D., secretary.

RICHLAND

"Endometriosis—the Modern Disease", was the subject discussed by Dr. Robert J. Faulkner, Cleveland, at a meeting of the Richland County Medical Society, November 27, at the Mansfield General Hospital.—Geo. L. Evans, M.D., secretary.

Columbus—Recent changes in the faculty of the Ohio State University include the promotions of Dr. Claude S. Perry and Dr. Harry M. Sage from instructors to assistant professors in ophthalmology.

Columbus—"Herbs—Their Uses Yesterday and Today", was the topic discussed by Dr. Harry L. Reinhart at a meeting of the Columbus Garden Center.

Red Cross Expanding Its Blood Collection Plan; Ohio Cities Added

At the request of the Surgeons General of the Army and Navy, the American Red Cross is extending its blood collection program to key metropolitan cities on the Pacific coast and in the midwest, it has been announced by James L. Fieser, vice chairman in charge of Red Cross domestic operations.

At present seven eastern cities are engaged in the project. Collections are shipped by refrigerated express to a processing depot at Philadelphia where blood is reduced to dry plasma form for use by the Army and Navy. Arrangements are being worked out with biological laboratories in the midwest and Pacific areas for processing blood collections received from the cities to be added, Mr. Fieser said.

The first step in widening the blood collection program will be to set up collection depots at Los Angeles, San Francisco, Chicago, Detroit, St. Louis, Cleveland, Indianapolis, Cincinnati and Pittsburgh. Cities now engaged in the program include New York, Boston, Philadelphia, Baltimore, District of Columbia, Buffalo and Rochester (N.Y.). As the program gains momentum, other cities will be added.

Space for Exhibit at Atlantic City

Application blanks for the Scientific Exhibit at the Atlantic City session of the American Medical Association, June 8-12, may be obtained from the representatives of the various scientific sections or from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago.

A complete list of the section representatives appears on page 1900 of the November 29, 1941, issue of *The Journal of the A.M.A.* They include: Dr. Fred W. Dixon, Cleveland, Section on Laryngology, Otology and Rhinology, and Dr. Paul A. Davis, Akron, Section on Preventative and Industrial Medicine and Public Health.

Prize for Paper on Urology

The American Urological Association is offering an annual award not to exceed $500.00 for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deems none of the offerings worthy, no award will be made. Competitors are limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. Essays should be in the hands of the secretary, Dr. Clyde L. Deming, 789 Howard Avenue, New Haven, Conn., on or before April 1, 1942.

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GYNECOLOGY—Two Weeks Intensive Course will be offered starting April 6th. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting April 20th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting April 6th. Clinical and Special Courses starting every week.

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Do You Know - - -

Under a special grant of $75,000 from the Rockefeller Foundation, the National Health Council is undertaking a comprehensive study of the activities of private health agencies in the United States. Completion of the study is expected to take about three years, Dr. Kendall Emerson, president of the council, announced.

* * *

The Committee on Research in Dementia Praecox of the National Committee for Mental Hygience has made a new grant of $1,500 to Dr. Esther Bogen Tietz, Longview Hospital, Cincinnati, to continue research in dementia praecox. Scottish Rite Masons support the work of the committee. Dr. Tietz has been investigating the physical basis of mental disorders, specifically chemical changes associated with mental disorders.

* * *

According to a statistical bulletin of the Metropolitan Life Insurance Company, more persons die at age 71 in the United States than any other age, except in the first year of life. In 1939, the latest year for which data are available, there were 108,846 deaths of infants under one year of age and about 30,000 deaths of persons at age 71.

* * *

There are 3,735 Red Cross chapters with 6,131 branches, a total of 9,866, throughout the United States. During the past year 80,939 persons successfully completed Red Cross Home Nursing courses taught by 2,500 nurse-instructors. Because of the increasing demand, it is estimated that six times as many instructors will be needed in 1942.

* * *

The University of California Medical School, San Francisco, began a comprehensive two-year study of the common cold and other respiratory diseases in November. Ten members of the staff of the university will carry on the research under the direction of Dr. William J. Kerr, professor of medicine.

* * *

Dr. N. Paul Hudson, professor of bacteriology, Ohio State University College of Medicine, was recently chosen president-elect of the American Society of Tropical Medicine.

* * *

The Annual Spring Clinic Meeting of the Cleveland Dental Society will be held May 4-6, at the Hotel Statler, Cleveland.

* * *

Premarital laboratory reports filed with the State Department of Health between August 18 (the effective date of the Premarital Examination Law) and December 11, 1941, total 50,476, of which 48,556 were submitted from provisionally approved laboratories and 1,920 from the State

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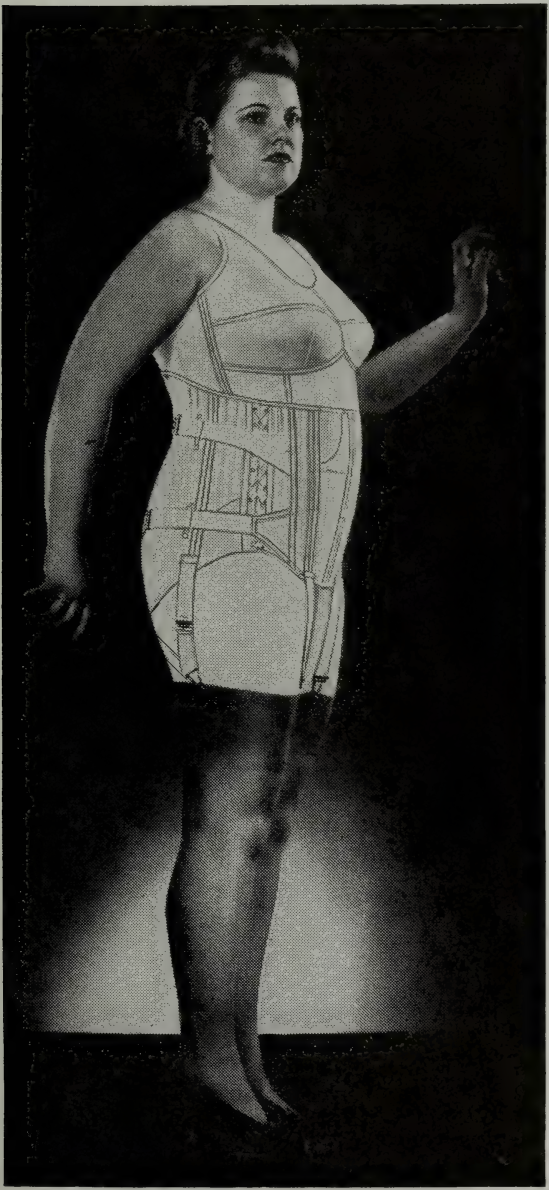

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Department of Health Laboratory. The state laboratory reported 39 positives and none doubtful. Approved laboratories reported 880 positives and 127 doubtful. The grand total of positives and doubtful was 1,046, which represents 2.07 per cent.

* * *

Dr. Robert H. Bishop, Jr., medical director of University Hospitals, Cleveland, has been appointed representative of the American Hospital Association on the Advisory Committee to Corps-Area Surgeons for the Fifth Army Corps Area, which comprises Ohio, West Virginia, Kentucky and Indiana.

* * *

The results of experiments on clothing for cold climates made during the Byrd Antarctic expedition have been used by the War Department in the designs of new Winter headgear for soldiers standardized by the Quartermaster Corps.

* * *

Tularemia was an obscure and unrecognized disease prior to 1908. It received its name from Tulare County, California, when Dr. George W. McCoy conducted an investigation of diseased ground squirrels and discovered the germ causing the disease.

* * *

A resolution commending City Council for its interest in a smoke abatement and air purification program, and urging it to continue to plan toward practical solution of the air pollution problem, has been adopted by the Academy of Medicine of Cincinnati.

* * *

According to the Statistical Bulletin of the Metropolitan Life Insurance Company there were 23,081 civilian fatalities from air raids in England during 1940.

* * *

The National Society for the Prevention of Blindness declares that 98 per cent of the eye injuries which occur in American industries at the rate of 1,000 a day, and which represent a loss of $200,000,000 annually are wholly unnecessary.

* * *

Dr. J. L. Fomorin, who has practiced medicine at Marathon since 1888, celebrated his 86th birthday on November 28. He is a honorary member of the Clermont County Medical Soiety.

* * *

Proof that dogs can contract tularemia under favorable natural conditions is submitted in an article entitled "Tularemia in Dogs", by Leo F. Ey and R. E. Daniels, of the Laboratory Division of the Ohio Department of Health, published in the December 13, 1941, issue of *The Journal of the American Medical Association*, pages 2071-2.

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(1) 1932. J. Am. Med. Assoc. 98, 1429
1938. Nutrition Abstracts and Reviews 8, 281.
1938. J. Am. Med. Assoc. 110, 650.
1940. J. Am. Diet. Assoc. 16, 891.

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The Physician's Bookshelf

The Art of Science of Nutrition, by Estelle Halley and Grace Carden ($3.50, *The C. V. Mosby Co., St. Louis, Mo.)*, is a textbook on the theory and application of nutrition by the teachers of the University of Rochester, School of Medicine and Dentistry. This is a beautiful volume with excellent illustrations, some of which are in attractive colors, and makes about as readable a book as has come to your reviewer's attention.

Scientific Aspects of the Race Problem, by a group of distinguished scientists. ($3.00, published by *The Catholic University of America Press, Washington, D. C.)* The authorities speak in a clearly objective manner that makes this important reading and that should help to clear our minds of many erroneous statements which threaten to poison our civilization.

Out of the Test Tube, by Harry N. Holmes, Ph.D. ($3.00, Third Edition, *Emerson Books, Inc., New York)*, is a clever book by the professor of chemistry at Oberlin College. Its first and second editions have already been reviewed in these pages. This edition contains much new material, including a chapter on "Strategic Raw Material". It is heartily recommended as a book which will go a long way towards bringing our knowledge of chemistry up to date.

Occupational Diseases, by Rutherford T. Johnstone, M.D. ($7.50, *W. B. Saunders Company, Philadelphia)*, is a discussion of occupational hazards. It attempts to disseminate correct knowledge as to what constitutes harmful exposure and what may be expected from exposure to certain substances. In addition information regarding some of the older industrial poisons is given a needed review. This work, therefore, is an important book in the library of everyone associated with industry.

Cancer of the Face and Mouth, by V. P. Blair, M.D., Sherwood Moore, M.D., and Louis T. Byars, M.D. ($10.00, *The C. V. Mosby Company, St. Louis, Mo.)*, is a summary of the recent advances in this very important subject. Subject matter is presented by these St. Louis authorities in an attractive and serviceable form. The volume is in every way to be recommended to any who are interested in the diagnosis, treatment or surgical repair of these serious evils.

Essentials of General Surgery, by Wallace P. Ritchie, M.D. ($8.50, *The C. V. Mosby Company, St. Louis, Mo.)*, is a single volume textbook intended for the undergraduate student of surgery. By omitting operative surgery as outside the immediate concern of the student, the author has succeeded in condensing his subject into about

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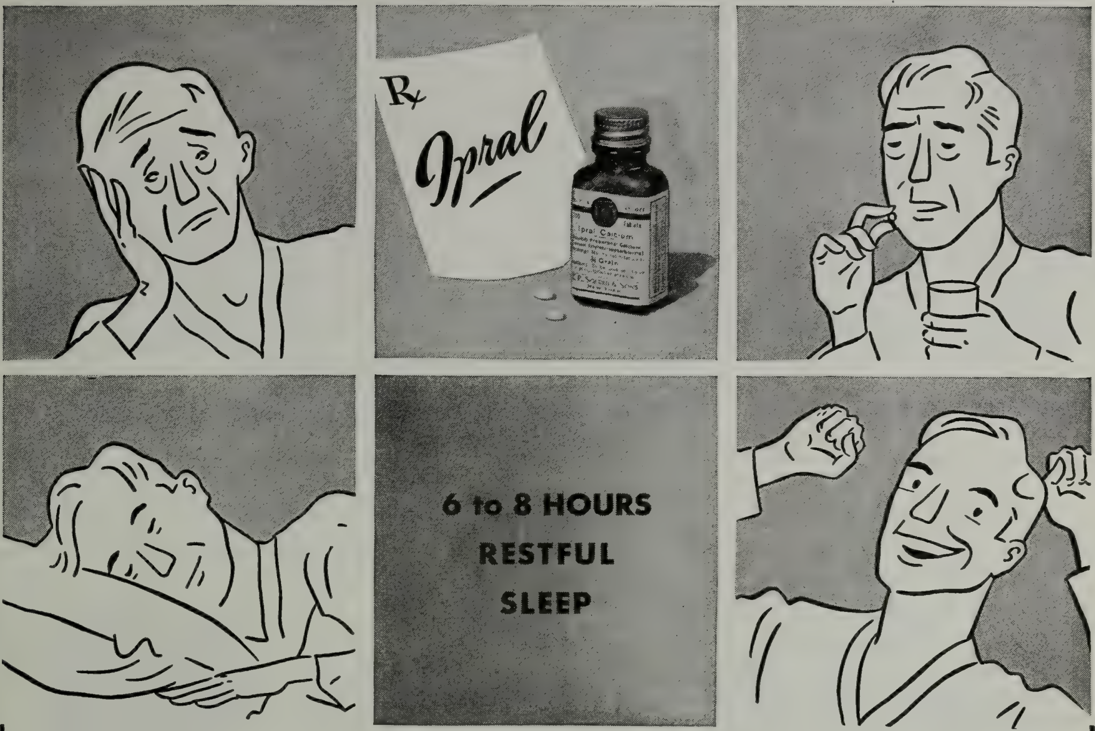

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800 pages and in giving the undergraduate a chance to grasp the fundamental principles without distraction.

Prenatal Care for Fathers, by John Gould ($1.50, *Stephen Daye Press, Brattleboro, Vermont)*, does for the prospective male parent what has been so many times done for his mate. The author takes care of all his troubles, worries, emotional upheavals, and the mental unrest. Whenever a blessed event is expected this book should be at hand to save father.

A Primer for Diabetic Patients, by Russell M. Wilder, M.D. ($1.75, seventh revised edition, reset, *Saunders, Philadelphia)*, describes improvements in the procedure of administering protamine-zinc insulin. This book maintains its high standards and contains the substance of the instruction given in the Diabetic School at the Mayo Clinic.

The Furtherance of Medical Research, by Alan Gregg, M.D. ($2.00, *Yale University Press, New Haven, Connecticut)*, presents the Terry Lectures and is a pretty frank review of our present status in medical research. Certainly should be read by every physician connected with medicine touching on medical research. Certainly no one is more qualified to discuss these points than the Director for the Medical Sciences at the Rockefeller Foundation.

Functional Pathology, by Leopold Lichtwitz, M.D. ($8.75, *Grune and Stratton, Inc., 443 Fourth Avenue, New York, N. Y.)*, is an analysis of the mechanism of symptoms and signs of diseases written from a very personal point of view by a distinguished authority. This, therefore, can be recommended very heartily to all who are interested in the manifestations of the disease.

Nutritional Deficiencies, Diagnosis and Treatment, by John B. Youmans, M.D. ($5.00, *J. B. Lippincott Company, Philadelphia)*, brings together in a useful volume the latest information that is necessary for a proper understanding of nutritional deficiencies and practice. The book is highly recommended.

Baker Memorial, by Haven Emerson, M.D. (50¢, *The Commonwealth Fund, New York, N. Y.)*, is a study of the first ten years of the Baker Memorial, a unit for people of moderate means at the Massachusetts General Hospital. This institution is unique in medicine and hospital administration.

The Modern Treatment of Syphilis, by Joseph Earle Moore, M.D., and Associates. ($7.00, Second Edition, *Charles C. Thomas, Springfield, Ill.)* Twenty new major items lend fresh interest to this edition. It is based on experience with over 35,000 cases of the disease. The research of the first edition and the sound revision at this time assures the second edition of a wide acceptance.

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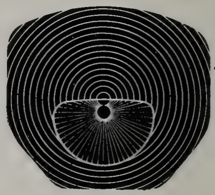

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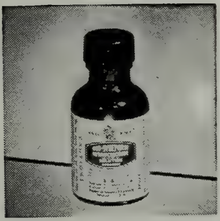

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News Notes

Cincinnati—Dr. M. A. Blankenhorn, head of the department of medicine, University of Cincinnati College of Medicine, recently conducted a three-day medical institute at the Marion Sims Memorial Hospital, Lancaster, S. C. This is one of the Commonwealth Fund group of hospitals.

Columbus—Dr. A. D. Frost was one of the guest speakers at the postgraduate course in ophthalmology and otolaryngology, December 8, at the Cleveland Clinic. His subject was: "Cataract Surgery, Selection of Cases, Complications."

Marion—Dr. Frederick G. Smith has been appointed an instructor in the department of surgical research at the Ohio State University College of Medicine.

Marysville—Dr. G. F. Moench, health commissioner of Union and Delaware counties, is co-chairman of the Union County Health and Nutrition Council.

McArthur—Dr. Jonathan Forman, Columbus, Editor of *The Ohio State Medical Journal*, spoke on "Nutrition and National Defense", at a meeting of the Vinton County Nutrition Council.

Middletown—Dr. J. A. Carter, city health commissioner, is editing a health column which appears daily in the local newspaper.

Piketon—Dr. I. P. Seiler was re-elected mayor at the November election.

Ravenna—Dr. Bernard H. Nichols is a member of city council.

Sidney—First lieutenant Brent A. Welch, Medical Corps, U. S. Army, now on active duty at the Station Hospital, Fort Hayes, Columbus, has been promoted to the rank of captain.

Springfield—Staff officers of City Hospital are: Dr. Carl H. Reuter, president; Dr. William D. Beasley, vice-president, and Dr. Wm. P. Ultes, secretary-treasurer.

Steubenville—Dr. George W. Bassow has resigned as health commissioner of Jefferson County. He will return to private practice in Massachusetts.

St. Clairsville—Dr. Homer S. West is the new health commissioner of Belmont County.

Toledo—Dr. Kenneth C. McCarthy related some of his experiences while on duty at an American Hospital in Great Britain, at a meeting of the Sylvania Education Association.

Youngstown—Dr. O. J. Walker, president of the Mahoning County Medical Society, was guest speaker at a meeting of the Youngstown Society of Medical Technicians.

Zanesville—Dr. Beatrice T. Hagen, who has been health commissioner of Muskingum County for 12 years, was reappointed for a one-year term. Dr. Hagen is also secretary of the Muskingum County Academy of Medicine.

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Teaching Nutrition to People Who Take Their Noonday Meals Out

ALICE H. SMITH, B.S., M.S.

MEDICAL records along with national, state, and local health and food surveys indicate that there are many, many more malnourished persons than there need be in this country of ours. When we consider the human and material resources available in this so-called "Land of Plenty" we realize that we have not, as a nation, taken advantage of the Fruits of Science, the application of which could materially lower the incidence of nutritional deficiencies.

It is true that the incidence of frank or outright deficiencies are on the decline, in fact rare, but there are all too many cases of what Dr. Russell Wilder so aptly describes as "precritical" cases of nutritional deficiency. With the newer laboratory techniques, improved methods of diagnosis and the vast amount of the newer knowledge of nutrition, it is easier now to prevent the severe deficiencies. These same devices have made it easier for the medical profession to detect early symptoms and at the same time point the way for a program of preventive medicine, a program where nutrition must play a prominent part.

Recognizing and admitting that we have a problem of malnutrition and knowing that something can and should be done about it, as patriotic citizens, we are obligated to plan a program which will improve the health of each and every citizen. We will, in many cases, have to adopt a new and higher standard of health. We can no longer be satisfied with just passing health—it must be optimal health. We must help people to understand that something other than bacteria can and does cause illness. A poorly fed body becomes an easy prey to bacteria. We need to make it clear that there are two kinds of hunger, the hollow and the hidden. There is nothing mysterious about the first kind, neither is it the most dangerous kind because the body has a mechanism which gives warning of such a condition. Unfortunately the body is not equipped with a mechanism to give immediate warning of the onset of hidden hunger. Techniques and tests are being perfected for the early detection of such a state but they will not substitute for hunger pangs which accompany the hollow hunger.

The Author

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Before an intelligent plan of prevention can be prepared it is essential that we consider some of the factors involved in the problem of malnutrition. Some of the reasons for the widespread prevalence of hidden hunger are: poor food habits, self-prescribed diets, food-fads, fears, stubbornness, lack of finances, and ignorance, along with the speed and rush of the twentieth century. This, it would seem, points clearly to the need for a program of nutrition education. Those of us who are fortunate enough to have acquired the skills and knowledge necessary for planning and administering such a program have a duty and responsibility which cannot and must not be shirked. Such a program must have as its major objective the teaching of the relationship of food to health. This of necessity must include the teaching of the selection and preparation of the right kinds and amounts of food necessary for all individuals. Actually what we need to do is to translate the findings of scientific research into common, everyday language which can be understood by all persons regardless of economic status, race, creed or amount of education. No teaching can be considered effective unless it has motivated the learner to apply the facts taught. For this reason, it is advisable, in most cases, to state simply the reason why certain foods are more valuable than others. This is particularly true if the facts taught interfere with long established habits or customs which should be modified or changed, and what habits are more firmly fixed than those of eating? With this in mind, the following outline for the selection of an adequate dietary is presented. The "Reasons Why" are, of necessity, general. Since all foods contain many constituents and each constituent has, in most cases, more than one function, only the most outstanding functions are mentioned.

THE HOW—WHY—WHERE AND WHAT OF FOODS

I. MILK.

How much is necessary?

For children, one quart daily.
For average adult, at least one pint.
For pregnancy, 1 to 1½ quarts daily.
For lactation, 1½ to 2 quarts daily.

Why is milk necessary?

When taken in the amounts recommended it furnishes a generous portion of the daily requirement of:

1. Protein of good quality, needed for muscles and blood.
2. Calcium, needed for bones and teeth. Milk is the best food source of calcium.
3. Phosphorus, needed for all parts of the body and especially bones and teeth.
4. Vitamin A, needed for growth, health of the eyes, skin and lining tissues, especially those lining the respiratory tract.
5. Vitamin B_1, needed for appetite, for a healthy nervous system and to help the body use its energy food.
6. Riboflavin and nicotinic acid (other B Vitamins) needed for healthy skin and eyes and to help the body use its energy food.

What forms of milk are available?

Whole, fresh, fluid milk.
Skim, fresh, fluid milk.
Evaporated milk.
Buttermilk (whole and skim).
Dried whole milk.
Dried skim milk.
Cheddar Cheese.
Cottage Cheese.

Milk equivalents of one quart of whole fluid milk:

1 tall can evaporated.
1 quart fluid skim milk and 1½ oz. butter.
5 oz. (a bit more than ¼ pound) Cheddar cheese, often called American, yellow or store cheese.
4½ oz. dried whole milk.
3½ oz. dried skim milk and 1½ oz. butter.

Milk is still milk regardless of what form it is in. It may be in milk-made foods such as cream soups, puddings, ice cream, flavored milk beverages and Cheddar cheese.

II. FRUITS.

How many servings are necessary?

For all members of the family two servings daily.
For pregnancy, first half, two servings daily.
For pregnancy, second half, three servings daily.
At least one, and preferably two, of them should be citrus or tomato. (If this cannot be secured, ask a nutritionist about substitutions).

Why is fruit necessary?

Fruit is necessary because it contributes:

1. Vitamin C, needed for health of all body tissues, especially bones, teeth and blood vessels. Citrus fruits and tomatoes (along with certain other fresh fruits) furnish the richest and most dependable sources.
2. Iron, needed for blood.
3. Roughage, needed as an aid to elimination.

What forms of fruits are available?

Fresh, canned, dried and juiced.

Note: Never add baking soda to fruits, it destroys vitamins C and B_1.

III. VEGETABLES.

A. Potatoes—

How many servings are necessary?

For all members of the family, one or more servings daily.

B. Other Vegetables—

How many servings are necessary?

For all members of the family, two servings daily.
For pregnancy, first half, two servings daily.
For pregnancy, second half, three servings daily.
At least one of them should be leafy, green or yellow.
One serving should be raw.

Why are vegetables necessary?

Vegetables are necessary because they furnish:

1. Iron needed for blood. The leafy vegetables and potatoes are rich in this mineral.
2. Vitamin A (see Vitamin A under milk). The leafy and yellow vegetables are high in Vitamin A value (carotene).
3. Vitamin B_1 (see Vitamin B_1 under milk). All vegetables have some but the dried beans, peas and lentils as well as peanuts are especially rich sources.

What forms are vegetables available in?

Fresh, canned and dried.

Note: Vegetables may be high in certain minerals and vitamins but unless they are properly prepared much of that food value will either be destroyed or be in the water the vegetables were soaked or cooked in.

Baking soda will destroy the vitamins B_1 and C. It should never be used in cooking vegetables.

IV. EGGS, MEAT, FISH.

How many servings are necessary?

For all members of the family, when cost permits, one egg and one serving of meat daily.

For children, normal adults and pregnancy and lactation, one serving daily of another protein food such as cheese or legumes is desirable.

Why are eggs and meat necessary?

They are necessary because they contribute:

1. Protein of good quality (see protein under milk).

2. Iron—the amount of iron in one egg furnishes a generous portion of the day's requirements.

3. Phosphorus (see phosphorus under milk).

4. Vitamin B_1 (see Vitamin B_1 under milk). The organs (such as liver and kidney) and lean pork are the best meat sources.

5. Vitamin A (see Vitamin A under milk). Egg yolk and liver are especially good sources.

How do you use eggs and meat in low cost dietaries?

Eggs are still eggs and high in food value even though they are used in cooking and in combination with other foods.

Storage eggs are equal in food value to fresh eggs. Brown eggs and white eggs have the same food value.

Inexpensive cuts of meat are high in food value but must be prepared differently than expensive cuts such as steaks and chops. Soups, stews, meat loaves, meat and cereal and meat and vegetable combinations are some of the ways in which inexpensive cuts may be used.

It is not harmful to eat meat more than once a day. This is a matter of economics. If more meat means less protective foods, then it is not a wise choice.

V. CEREALS AND BREADS.

How much and what kinds are necessary?

For children and normal adults, at least one-half and preferably more should be whole grain or "enriched". For pregnancy, all of it should be whole grain or "enriched". For pregnancy, the amount necessary will be determined by the mother's weight and will probably consist of one to two servings daily.

Why are whole grain or "enriched" cereals and breads necessary?

White bread and refined cereal products furnish only calories and a small amount of protein. The whole grain or "enriched" products supply in addition:

1. The B vitamins—(Vitamin B complex), (see B Vitamins under milk.) The mother's need for these vitamins is greatly increased during pregnancy and lactation. Cereals and breads rich in these vitamins furnish an inexpensive source of them.

2. Protein—all cereals contain some protein but the whole grain products contain a little more than the non-whole grain products.

3. Minerals—certain of the minerals, especially iron and calcium, occur in larger amounts in the whole grain or "enriched" cereal products.

4. Roughage—whole grain cereals supply some roughage which acts as an aid to elimination and usually a very important consideration in pregnancy.

Where do you get these better cereals and breads?

The "enriched" flour looks, tastes and bakes just the same as the non-enriched flour. It is no more expensive than whole wheat flour and should be used exclusively when whole wheat flour is not available (summer months).

Some of the whole grain or "enriched" cereal and bread products are:

rolled oats
whole wheat
cracked wheat
pettijohns
wheatena
ralston
new cream o'wheat
malt o'meal
rye
barley
"enriched" white flour
"enriched" white bread
Staff bread

How can you use these better cereal products?

A mixture of ½ white, preferably "enriched" and ½ whole wheat, is very desirable for every baking and cooking purpose except white cakes. Try it in pie crust and spice cake and cookies! Use it in gravies, biscuits, muffins and waffles! Use whole wheat bread in making French toast and bread pudding.

VI. BUTTER or VITAMIN A OLEOMARGARINE.

How much is needed?

For all members of the family, a small amount daily.

For pregnancy, the amount depends upon body weight.

Why is butter or Vitamin A oleomargarine recommended?

It is recommended because it contributes:

1. Vitamin A (see Vitamin A under milk). This is one of the best sources and in the case of Vitamin A oleomargarine, it is a relatively inexpensive source.

VII. VITAMIN D.

How much is necessary?

For pregnancy, the amount should be determined by the physician.

Why is Vitamin D necessary?

Vitamin D is needed by the body to make efficient use of calcium and phosphorus in bone and tooth formation and maintenance.

How may Vitamin D be secured?

1. By the action of the direct application of ultra-violet rays, preferably from the sun, to the skin.

2. From concentrates such as cod and other fish liver oils. The fish liver oils have, in addition, Vitamin A.

3. In Vitamin D milk.

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One quart of Vitamin D milk contains at least 400 I.U. per qt. One quart of irradiated milk contains at least 135 I.U. per qt. (Watch the market for irradiated fresh and evaporated milk with 400 I.U. per quart).

In this area the sunshine is not a very dependable source of Vitamin D and for this reason, the physician will prescribe the amount in accordance with the amount in the mother's diet and the amount of available sunshine at the time. The physician will prescribe the necessary amount for the infant and child.

VIII. IODINE.

How much iodine is necessary?

In regions where there is iodine in the soil and water, foods produced there contain sufficient iodine for all persons. In this area, known as a part of the "Goiter Belt", the soil and water contain practically no iodine. Iodized table salt contains enough for the average, normal person.

Why is iodine needed?

Iodine is needed for the normal functioning of the thyroid gland, the body's chief energy regulator.

Where can iodine be obtained?

1. In iodized table salt.
2. In milk produced by cows whose feed contained iodine.
3. In foods grown or produced from soil containing iodine.

Note: The soil in this area could be made to contain iodine if all the live stock were given iodized instead of plain salt. The animals would then excrete sufficient iodine to have it act as a fertilizer. Then, milk, meat, fruits and vegetables grown in the so-called "Goiter Belt" could contain sufficient iodine for human needs.

The plan outlined is not a difficult one to follow and yet a large percentage of our population seems to consider it so. One objection to a "plan" is that it dictates every mouthful of food that the individual eats. That, too, is erroneous. The pattern outlined, if adhered to, would provide the average, normal person with about one-half to three-fourths of the total daily food needs. It merely furnishes a guide which will insure adequate amounts of the constituents which studies have shown many of our modern dietaries to be deficient in. By selecting foods from the groups mentioned there is opportunity for choices which are the result of habit and racial or religious customs.

Milk, the number one food on the list, is still milk, regardless of what form it is consumed in. The same is true of eggs. An egg is still an egg, whether it be in a custard, muffins, pie filling, sandwich filling or soft cooked in the shell. Cereals, too, are still cereals, even though they be in the form of bread, breakfast food, muffins, cookies, meat loaf or soup. The important thing is that the kinds and amounts of foods listed should be consumed during the day. Our aim is for an adequate dietary for the whole day rather than "balanced meals".

Another objection which is frequently raised in connection with the aforementioned outline is that it is expensive. The answer is that it may be but is not necessarily so. All too frequently a plan which is far less adequate costs considerably more. The following two daily meal plans clearly indicate that cost is not a measure of nutritive adequacy.

ADEQUATE DIETS AT TWO COST LEVELS

Diet I **Breakfast**	**Calories**	**Cost per person**
Sliced Orange, 1 whole	80	.032
Oatmeal, 2/3 c 1 oz.	100	.002
Milk ¼ c	42	.010
Sugar 2 t.	40	.002
Whole W. Toast, 2 sl.	140	.010
Butter (Oleo) 1 T.	100	.006
Jam 1 T.	59	.001
Coffee — adult 1 c	—	.004
Top milk 2 T	21	.007
Sugar 1½ T.	30	.002
Milk — children 1 c	—	.032
	612	.108
Lunch		
Creamed egg ½ c	275	.077
Hashed Brown Potato 2/3	208	.013
Carrot Sticks, ½ med.	17	.005
Graham Muffins, two	204	.009
Butter (Oleo-Vit. A) 1 pat	50	.003
Baked apple, 1 med.	200	.009
Milk ¼ c	42	.008
Oatmeal Raisin cookie (2)	136	.006
Milk 1 c	168	.032
	1300	.162

Diet II **Breakfast**	**Calories**	**Cost per person**
Orange juice, 4¾ oz.	80	.040
Puffed wheat, 1 cup	45	.01
Milk, ¼ c	42	.008
Sugar, 2 t.	40	.002
Pecan Roll, one	210	.025
Butter, 1 T	100	.011
Coffee, adult 1 c	—	.006
Cream, 2 T	50	.019
Sugar, 1½ T	30	.002
Milk — children 1 c	—	.032
	597	.155
Lunch		
Eggs a la King-Mushrooms	278	.080
Potato Chips (20 Chips)	206	.028
Celery, 2 large pieces	17	.010
Plain Muffins, two	232	.017
Butter, 1 pat	50	.006
Frozen fruit (Strawberry)	40	.075
Sugar, 1 T	20	.006
Cream, ¼ c	100	.039
Cookies, Refrigerator (2)	134	.020
Milk, 1 c	168	.052
	1245	.313

Dinner		
Fried Pork Chop, 1	252	.026
Baked Potato, 1 small	252	.020
Butter (Oleo) 1 pat	50	.003
Beet Greens, ½ c	25	.001
Bacon fat, ½ T	50	.000
Cole Slaw, ½ c	25	.001
Boiled dressing, 2 T	59	.007
Whole W. Bread, 2 sl.	140	.010
Butter (Oleo) 1 pat	50	.003
Gingerbread	304	.024
Lemon Sauce, ¼ c	80	.002
Tea — adults		.003
Sugar, 1½ T	30	.002
Milk, children, 1 c		.032
Total per person	1317	.134
for 3 meals	3229	.404

Dinner		
Rib Lamb chop, 2	280	.051
Baked Idaho Pot. 1 med.	150	.025
Butter, 1 pat	50	.006
String Beans, ½ c	25	.025
Butter, ½ T	50	.006
Head lettuce, ¼ head	15	.025
Russian Dressing	166	.005
Whole W. Roll, 1 med.	105	.020
Butter, 1 pat	50	.006
Chocolate cake, 1/12 c	388	.043
Tea — adults		.003
Sugar, 1½ T	30	.002
	1309	.217
	3151	.685

COMPARISON

	Per Person	Cal.	Pro.	Ca.	P.	Fe.	Vit. A	Vit. B	Ribo	Vit. C
Diet I	$ .404	3229	85.5	1.291	1.9	21.96	17,279	3.374	2.337	1.52
Diet II	$ .685	3151	72.5	.991	1.577	16.61	6,138	1.220	1.939	1.69

Prices as of November, 1941, Cleveland, Ohio.

Other examples which clarify this point are the comparisons of cost and nutritive content of the following:

I—(A) One cup of coffee with one ounce of cream and two teaspoons of sugar compared with
(B) One-half pint of milk

	Calories	Protein	Calcium	Iron	Vit. A (Int. Units)	Thiamin Vit. B_1 (mg.)	Riboflavin (mg.)	Ascorbic Acid Vit. C (mg.)
A	99	0.8	.028	.06	170	.008	..	..
B	167	8.0	.290	.49	250+	.137	.52	2.0
II—(A) One glass of soft drinks compared with (B) One glass of milk (6 ounces)								
A	65 to 85	..	...	..	...	...	..	..
B	125	6	.22	.37	188+	.103	.39	1.5
III—(A) Serving of apple pie compared with (B) Banana								
A	406	2.6	.011	.58	...	...	...	..
B	150	1.8	.012	.98	450	.068	.135	15
IV—(A) A sandwich made with white non-enriched bread and bologna compared with (B) A sandwich made with whole or cracked wheat bread and American cheese								
A	163	6.4	.033	.65	...	.030 ?	?	..
B	244	11.6	.290	1.17	600	.164	.270	..

Such comparisons speak for themselves and yet a majority of persons consider any purchase "cheap" if the cash outlay was small. Actually the true test of cost is the value received for the expenditure made. Many people say they can't afford to buy milk because it is too expensive. They say, "just think of it, a quart of milk costs $0.14." On the other hand those same persons will buy soft drinks at the rate of $0.30 or more per quart and think nothing of it. The food value of soft drinks comes from their sugar content and considering the cost from that angle they are paying more than $1.00 per pound for sugar (at 5 cents per 6 oz. glass or bottle), and not getting the protein, mineral and vitamins as indicated previously. Therefore, milk, in comparison, is a cheap food because one gets so much food value for his money.

The problem of soft drinks versus other beverages brings to mind the food habits of the vast army of clerical and industrial workers, both male and female, who all too frequently arise too late to eat an adequate breakfast, which can be high in food value and low or moderate in cost. In the mad rush he or she hurriedly swallows a cup of coffee and may gulp a sweet roll (made with non-enriched flour) or a doughnut or two, (they too, are usually made from non-enriched white flour). The person whose breakfast consisted of coffee is exhausted and irritable about the middle of the morning, so he or she takes the rest period to secure another cup of coffee or a soft drink and usually a cigarette. The luncheon picture is not much better in the case of many workers. Candy bars, soft drinks and cigarettes again for lunch. The afternoon rest period is apt to be a repetition of the morning rest period. The "One Square Meal" appears on the scene at dinner time, we hope. Such a procedure, exclusive of the dinner, represents about a 25 or 30 cent cash outlay. The question is, what did it bring in return in terms of food value? Not a great deal. Mostly calories, actually this represents about 450 calories or approximately two-fifths of the office workers daily requirement. This means the remaining one meal must be depended upon to furnish not only the remaining calories but practically 100 per cent of the proteins, minerals and vitamins necessary for the maintenance of life and health. That is expecting wonders from the few foods that make up the dinner meal. Most persons would not have the funds nor the capacity for that kind of dinner each working day.

Because so many of the young working people have limited incomes it is extremely important that they know how to secure maximum food value for a minimum expenditure. How can this be done? One fact that needs to be kept in mind is that the less money there is available for food, the more important milk in all its forms, whole grain and/or enriched cereal products and citrus fruits and tomatoes, become.

Interpreted into terms of daily meals, the worker would do well to start the day with a breakfast consisting of whole grain cereal and milk or whole grain toast and milk or milk beverage such as cocoa. Fruit is desirable. If citrus fruit or tomatoes are available at another time of the day, then such fruits as prunes, applesauce, stewed raisins or bananas could be included in the breakfast. When cost permits, eggs and/or bacon are desirable but not necessary.

The next question is, can the worker select for lunch that which will give good returns for the expenditure made? The first item that comes to mind is the sandwich. Sandwiches may be high in food value or they may not be. Sandwiches made from, preferably whole wheat and if not whole wheat, enriched bread and filled with cheese, eggs, peanut butter, fish, or meat including the favorite lean ham, make a good contribution toward the day's food needs. If the sandwich filling is cheese that may be considered as a part of the daily milk requirement. Milk, either fresh or evaporated added to coffee may also be considered a part of the daily quota. Hot chocolate or cocoa is another form of milk, providing the hot chocolate is made with milk. The beverage, so frequently served, which is made from a cocoa-sugar-hot water mixture with a dab of whipped cream on top is not a substitute for the old-fashioned cocoa made with milk. Insist upon having your cocoa made with milk! If you are counting your calories it will be much better to have the milk and dispense with the whipped cream.

Unless vegetables have been properly cooked it would be wise to spend the money on foods which could not have their food value destroyed as easily as vegetables can. When vegetables are overcooked or stand on a steam table too long, they neither taste nor look good and what is worse they have retained very little food value. In this case, the individual must be sure to eat vegetables at home where the selection and preparation can be controlled.

Such staple foods as baked beans and brown bread, and macaroni and cheese are usually good investments. For the person who does not choose to have such hearty lunches, soup and salad makes a good combination. Milk soups are a good "buy". They provide about four ounces of milk and a small amount of vegetable. Milk or cream soups are, of course, higher in food value than meat stock soups.

Rolls, bread or toast should be of the whole grain variety or made from enriched flour. The products made from the enriched flour look and taste exactly like the non-enriched products. The values are hidden. Insist upon having them! If the proprietor has sufficient demands for a product as easily procured as is enriched flour and bread, he will secure it. The same thing is true of whole wheat. If the demands are made loudly and frequently enough they will be met.

It is advisable to have some raw fruit or vegetable each day. This may be secured in a salad; however, the luncheon salad made from canned or cooked vegetables and fruits is a good choice. The lettuce the salad is served on is part of the salad and should be eaten, especially if it is the dark green leaf lettuce. Do not consider the lettuce your daily serving of leafy, green vegetable unless you did eat it. All too frequently the garbage can gets the good score for securing its daily quota of raw vegetables. The popular chef's salad or salad bowl is a wise choice, especially for those doing non-strenuous work.

The luncheon salad may contain a part of the daily milk quota if it is made with American or cottage cheese. Cheese and fruit combinations as well as cheese and vegetable combinations are apt to be higher in food value than many of the so-called plate lunches. This is particularly true when the vegetables have been over-cooked or cooked the night before and then allowed to stand on a steam table all the next morning and noon hour. Meat, too, when treated in this manner, loses some of its food value. Foods prepared in such a manner not only lose food value but they lose their aesthetic appeal also. Actually if one could not see such food, he might have great difficulty identifying it by taste!

Fresh fruit is not as filling as pie or cake but is an excellent dessert, for food value received. If your favorite lunch counter does not have fresh fruit that is not a serious matter. All grocery stores and fruit and vegetable stands have an assortment of fruit and it can be eaten during the rest period or at another meal. The popular American dessert, ice cream, is another form of milk and gives fairly high returns in value for money spent.

Puddings made with milk are higher in food value than those made with gelatin. A gelatin dessert or salad has little food value other than calories unless the gelatin has been used as a vehicle for vegetables, fruits and nuts. Baked custard and custard pie is a pleasant and desirable way of "eating" milk and eggs.

Pumpkin pie provides another means of securing a yellow vegetable and, in addition, contains milk and eggs.

In neighborhoods where there are no acceptable eating places home packed lunches are certainly to be desired in preference to the poor quality food offered in many public eating places. A small investment in a thermos bottle may be a very wise investment. Hot soups or beverages may be carried in the winter time and a cold beverage such as milk or tomato juice or lemonade or orangeade in the summer months.

Grapefruit juice and orange juice combined is a very desirable thrist quencher as well as a drink high in food value—Vitamin C specifically. Such a beverage might well replace the soft drink if a thrist quencher is what is actually desired. Besides it represents a wise investment in health values.

The dinner is usually the largest meal of the day and rightfully so. There is more time for eating and more time for relaxation after eating than at any other time of the day.

Dinner should include all of the items in the "Plan" which have not been eaten at breakfast or luncheon or between meals. After a few days of conscientious checking it becomes a simple matter to select wisely and still retain one's appetite and actually enjoy eating. A simple score card like the following, might be of value.

Questionnaires on food habits filled in by working girls and observation at the modern lunch counter indicates that the modern American girl does not select her food as wisely as she might. This is partly explained by the fact that she is trying to maintain a stylishly thin figure and considers calories only. She either has forgotten or doesn't know that calories, too, need to keep good company, that is, the company of proteins (especially those from animal foods), minerals and vitamins. Man never has and never will live effectively by calories alone.

Speaking of minerals and vitamins, we must not lose sight of the fact that they were and still are found in food. With the proper selection and preparation of food, normal people can secure all they need in the foods listed in the previously outlined "plan".

The diet of the American girl is of great consequence because the girls of today are the mothers of tomorrow. Pregnancy is a normal condition but it does make additional demands upon the maternal organism. In view of this fact it is extremely important that every girl approach pregnancy in a good nutritive state. That means that her food should be selected with wisdom and care. It does not mean that she will calculate the nutritive content of each and every bite of food ingested. Rather it means that she will follow the type of plan previously suggested. Eating can and should be fun, even though one is eating wisely. This means too that girls need to form good food habits. For some, it may mean changing a few habits but such changes will, in most cases, pay big dividends.

The value of a good diet is clearly evidenced in the work that was done in Toronto with a

HOW DO YOU RATE?
Do Your Food Dollars Make Sense?

FOODS	MINIMUM NUMBER OF SERVINGS PER DAY	PERFECT SCORE	YOUR SCORE
MILK—(CHEESE)	ONE QUART—for children ONE PINT—for adults	20	
VEGETABLES	TWO—one raw ONE—Leafy, green or yellow	15	
FRUITS	TWO—one citrus, or tomatoes	15	
POTATOES	ONE	10	
EGGS	ONE	10	
MEAT, FISH or POULTRY	ONE	10	
BUTTER	THREE (squares)	10	
WHOLE GRAIN BREAD or CEREAL	TWO	10	
OTHER FOODS	AS NEEDED—to meet caloric requirement	x	
		100	? ? ?

Milk Equivalents

1 qt. whole milk—1 tall can evaporated milk.
1 qt. whole milk—1 qt. skim or buttermilk and 1½ oz. of butter.
1 qt. whole milk—5 ounces (1/3 lb.) American cheese.

group of 400 pregnant women. Doctors Ebbs, Tisdall and Scott* report that:

> "During the whole course of pregnancy the mothers on a good or supplemented diet enjoyed better health, and fewer complications and proved to be better obstetrical risks than those left on poor prenatal diets.
>
> "The incidence of miscarriages, stillbirths and premature births in the women on poor diets was much increased.
>
> "The incidence of illness in the babies up to the age of 6 months and the number of deaths resulting from these illnesses were many times greater in the Poor Diet Group."

It has always been important that we attempt to maintain a high level of health among our people but it is more important than ever at this time. This is so for two reasons. The first is that additional demands are being made upon each and every person. We must function at a high degree of efficiency. We must work harder and longer. We need to be emotionally stable and physically sound so that we may meet whatever strain or emergency comes our way. The second reason is that with the army requiring the services of so many of our doctors and nurses, it behooves every citizen to acquire and maintain the best state of health possible. This means acquiring some of the newer knowledge of nutrition and, most important of all, applying the knowledge.

For the benefit of those who would like to read a few of the less technical books and pamphlets on the subject of nutrition the following list is appended:

BOOKS

Food, Nutrition and Health, by E. V. McCollum and E. J. Becker.

Essentials of Nutrition, by H. C. Sherman and C. S. Lanford.

America's Nutrition Primer, by Eleanora Sense.

Nutrition and Physical Fitness, by L. J. Bogert.

Feeding the Family, by M. D. (D.) Rose.

PAMPHLETS

Fads, Facts, and Frauds in Nutrition, Massachusetts Agricultural Experiment Station Bulletin 342.

This Problem of Food, by J. I. Rowntree, Public Affairs pamphlet No. 33 rev.

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*The Journal of Nutrition, Vol. 22, No. 5, November 10, 1941—pp. 515-526.

The path to the sanatorium must be made easy for the patient and his family. The social investigation should make this its primary function. It should not be a search for resources to be exhausted before the community assumes the cost. The great majority of cases come from families in the low income groups with little if any savings. Treatment is expensive. Insistence upon the use of all the family resources means impoverishment and they may become community charges for rent, food, and clothing. A family is wrecked. The prospect of this is one of the chief deterrents to early hospitalization and to continued stay until the disease is arrested—Edward S. Godfrey, M.D., New York State Commissioner of Health.

A Psychiatrist Looks At Education

With the passing of the geographical frontiers which successfully utilized the ambitions and the exploiting, acquisitive instincts of men has come much limitation of economic opportunity. This in turn has imposed greater demands on the individual in his harassed interpersonal relationships. Gratification of materialistic desires has been lessened in many ways, especially for youth. This may be stated despite the fact that many have access to such modern conveniences as living in a multiple dwelling, buying previously cooked foods, sending out the laundry, using gas and electricity, and traveling by rapid transport. It is frequently suggested that such advantages have so hampered the resourcefulness of individuals that they could not cope with the complexities of life without them. It is true that technical changes in industry and business, the growing size of establishments, the use of power machinery, the operation of chain stores and other conditions of contemporary industrial development have all revolutionized the character of our social life. The material aspects of these changes are relatively easily accepted. But if one pauses to reflect upon one's own experience, the realization dawns that such adaptation has not been accomplished without great concomitant difficulty. We are prone to forget that while the material culture of a civilization is readily changed, the intangible, non-material culture of customs, traditions, codes of behavior, ethics, morals and folk-ways is less plastic. Long after new material values have changed the patterns of conduct which governed man's behavior in a former material culture, confusion, dismay, and distrust are produced as man struggles to reconcile the old with the new.

How may education of youth help to meet this situation? Young people should be permitted to share, in so far as their developing capacities permit, in the discussion and solution of the issues that confront society. Discussion groups in subjects dealing with human relations, social psychology and social science should be vital parts of the education of youth. Through such means a growing knowledge of interpersonal relations can be developed, bringing to the students the contributions of medicine, psychology and social case work as they relate to the factors underlying success or failure, happiness or unhappiness in life.—Louis Adrian Schwartz, M.D., Detroit; Jour. Mich. S.M.S., Vol 41, No. 1, January, 1942.

Let us make every American strong, stronger than ever before, sturdier in body, steadier in nerves, surer in living. This is our job, not all of it, but a vital part.—Harriet Elliott, Nat'l Defense Adv. Commission.

Primary Carcinoma of the Gallbladder

Report of Two Cases

OSCAR BERGHAUSEN, B.A., M.D.

IT is not uncommon for surgeons to perform many cholecystectomies and not encounter one case of primary carcinoma of the gallbladder. Rehfus[1] reports that in nearly 2000 cases where gallbladder disease was diagnosed in private practice not a single case of carcinoma of the gallbladder was encountered. In 7805 cases at the Bethesda Hospital of this city, only two cases of primary carcinoma of the gallbladder were encountered. These two occurred with biliary calculi in 215 cases, 46 males, in which the clinical diagnosis of cholecystitis was made, and in 116 of which biliary calculi were found. The resulting percentage of 0.93 in cholecystic disease agrees closely with the findings of Walters and Snell, namely 1 per cent, as quoted recently by Wiig[2] of the Mayo Clinic. Snell[3] had previously reported from the same clinic that the incidence of primary cancer had declined from 5 per cent to 0.5 per cent in 25 years.

CASE REPORTS

The first patient gave no history of long standing cholecystic disease with biliary colic which is commonly found in primary carcinoma of the gallbladder, but the clinical syndrome was that of carcinomatosis with involvement of the gallbladder, liver, ascites and jaundice. The jaundice was partly due to obstruction caused by enlarged lymph nodes; the cachexia, ascites and hemorrhage were due to hepatic involvement and the jaundice; the acholic fatty stool was caused by the obstruction as well as the necrosis of the pancreas.

Case 1. A man, aged 47, complained of general malaise and weakness. Eight weeks previously his appetite began to fail, he became weak and drowsy, and his skin began to itch, later becoming jaundiced. There was some tenderness in the abdomen. The stool was white and full of fat; his stool was constipated. The personal and family history was of no significance.

There were no findings in the examination of the head and chest beyond the jaundiced sclerae and evidence of pyorrhea of the gums and decayed teeth; many teeth missing. There was tenderness in the right upper quadrant, the epigastrium and about the navel. The spleen was palpable, likewise the liver.

The clinical diagnosis was tumor of the gallbladder, liver and catarrh of the duct; cirrhosis of the liver. The temperature on admission was 98.0, the pulse 115, blood pressure 120/80. The patient died one week after admission.

Post mortem report: Carcinoma of the gallbladder with metastases to the lungs, hilic lymph nodes, periaortic lymph nodes and liver with evidences of clinical jaundice; acute pancreatic necrosis; chronic cholecystic disease with cholelithiasis; chronic pulmonary emphysema; chronic passive congestion of the lungs; fibrous pleural adhesions (right); atherosclerosis of the aortic, coronary and iliac arteries; toxic changes in the viscera; adenomatous hyperplasia of the prostate gland; hemorrhage into the peripelvic tissue (right), and into the right renal pelvis; retroperitoneal hemorrhage (pelvis). Post mortem microscopic report: adeno-carcinoma involving the gallbladder, liver, lung, lymph nodes, peritoneum and suprarenal glands. Chronic pulmonary emphysema; congestion of the spleen; chronic interstitial changes in the kidney, liver and myocardium. Acute areas of pancreatic necrosis; generalized atherosclerosis.

The Author

● Dr. Berghausen, Cincinnati, Ohio, is a graduate of the Medical College of Ohio, 1904; member American College of Physicians; diplomate, American Board of Internal Medicine.

The second patient likewise, complained of pain, cachexia, jaundice and a palpable tumor mass in the upper right quadrant of the abdomen. He had been a sufferer of Parkinson's disease and gave no history of preceding biliary colic. Since the common bile duct and the cystic duct were patent, the jaundice was due to the hepatitis. The microscopic examination of the tumor tissue removed at the autopsy showed the presence of an epitheliomatous process; since no squamous epithelium is present in the gallbladder we must assume that the lesion was the result of metaplasia, since occasionally adenocarcinoma and squamous cell type have been demonstrated in the same gallbladder. Unlike the first case a tumor of the gallbladder was not suspected clinically. It is only when a hard, painful and irregularly shaped tumor is palpable in the upper right quadrant that malignancy of the gallbladder is suspected, the jaundice and cachexia being due to extension of the process and to metastases.

Case 2. A man, aged 69, was admitted to the hospital complaining of acute pain in the right upper quadrant of the abdomen which had been present for some time, growing worse at times. Nausea and vomiting were frequent. He became jaundiced, lost weight, and the stool at times was acholic. The patient was a sufferer from Parkinson's disease. A diagnosis of empyema

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Submitted September 30, 1941.

of the gallbladder with stones was made and the patient was operated upon.

The gallbladder was necrotic and the under surface of the liver was found to be necrotic. Above the liver, sero-purulent material was found; when the adherent omentum was loosened, a large amount of sero-purulent material was removed with a suction machine. The gallbladder, containing two large stones, was drained.

Beyond a trace of albumin, the urine was negative. The blood count showed 4,380,000 red cells and 35,000 white cells, of which 80 per cent were polynuclears. The X-ray examination yielded findings which suggested the presence of a large bowel obstruction situated in the descending colon. The patient died 19 days after admission and the post mortem was made one hour after death.

Post mortem findings: Midline clavicular incision was made. The abdomen was distended; there was considerable drainage of thick, foul smelling, purulent material from the recent operative wound. In the upper right abdominal quadrant the viscera were plastered together with dense fibrous adhesions. The rubber drain communicated with a large subphrenic abscess cavity which occupied the subphrenic space on the right and extended into the gallbladder area. The gallbladder was replaced by a large infiltrating carcinomatous mass which involved the entire wall of the gallbladder and extended into the liver tissue. There remained a shaggy walled lumen which contained thick, greyish yellow, purulent material. The wall of the gallbladder with the carcinomatous infiltration was from 2 to 3 cm. thick. The cystic duct could not be made out. No direct communication between the gallbladder and the subphrenic abscess could be demonstrated at this time, but there were many old and recent adhesions around the gallbladder which would indicate an inflammatory process of long standing. It is quite likely that there might have been a small perforation which later was sealed off by adhesions, or there might have been direct extension of the infection through the badly diseased gallbladder wall. The common bile duct was patent and also the hepatic ducts. The liver weighed 1470 grams; the capsule was thickened and rough in the subphrenic area where it formed a part of the wall of the abscess. When sectioned, the liver tissue appeared swollen and friable; the lobular markings were blurred and the tissue had a yellowish brown, dull color. No distant metastases from carcinoma were found, there being only focal extension of the carcinomatous tissue into the liver. Summary of the post mortem findings: carcinoma of the gallbladder with superimposed extensive acute infection and large subphrenic abscess; recent cholecystotomy and drainage of subphrenic abscess; terminal lobular pneumonia and right hydrothorax; toxic changes in the viscera; chronic fibrous pleuritis; early generalized vascular sclerosis; multiple diverticuli of the colon; and old herniaplasty left. Microscopic report: Carcinoma (epithelioma) of the gallbladder with acute inflammatory reaction in the neighboring tissue; acute perihepatitis; chronic interstitial changes in the liver, kidneys, myocardium and spleen. Apparently there was no carcinomatous invasion in the liver.

Metastatic carcinomatous invasion of the liver is a common sequence to malignancy elsewhere, as the gastro-intestinal tract, the breast or by extension from neighboring organs. Then the clinical history, the long period of illness with cachexia, pain, jaundice and marked ascites with frequent obliteration of liver dullness is characteristic. In primary carcinoma of the gallbladder a hard irregular mass is palpable in the upper right quadrant, not the smooth globular gallbladder of distension.

The following three case reports with autopsy findings are all characterized by carcinomatous invasion of the liver secondary to cancer of the bowel and breast.

Case 3. A man, aged 72, had been in good health until a year previously when he gradually began to lose in appetite and weight. He noticed increased swelling of the abdomen and legs. This process continued until he was bedridden. Previously he had been strong and robust in health. Upon admission the abdomen was completely distended with fluid. A clinical diagnosis of carcinoma of the pancreas with metastases to the liver was made. The blood count showed 4,120,000 red cells; 10,550 white cells and 71 per cent hemoglobin. Of the white cells 78 per cent were segmented. The urinalysis was negative. The patient died four weeks after admission. Autopsy report: Cirrhosis of the liver; carcinoma (primary site undetermined) with metastases to the left lung, liver, diaphragm, peritoneum and peri-aortic lymph nodes; chronic pulmonary emphysema; chronic passive congestion of the lungs; fibrous pleural adhesions (left); atherosclerosis of the aorta, coronary and iliac arteries with calcification; chronic perisplenitis; abdominal ascites; chronic gastric ulcer-benign; congenital cyst of the left kidney; bilateral arcus senilis; anodontia upper jaw; dental caries; evidences of recent abdominal paracentesis; decubitus of the right thigh. Post mortem microscopic report: adeno-carcinomatous nodules in the lung, diaphragm, liver, peritoneum and lymph nodes; primary seat probably in the gastro-intestinal tract since one section of this tract examined showed some degenerative changes in the mucosa suggesting malignant changes. The spleen was congested and showed marked thickening of the capsule with congestion of the blood vessels; chronic interstitial changes in the kidney and liver with fatty changes in the latter and malignant transplantation. Chronic pulmonary emphysema; generalized atherosclerosis; the pancreas showed chronic interstitial but no malignant changes.

Case 4. A married woman, aged 59, began to complain nine months previously when jaundice set in and remained. She could eat only small amounts of food. The stool was greyish in color. Three weeks previous to admission the abdomen began to enlarge; at no time was it painful. Previous to the onset she had never been ill. Examination of the abdomen showed distention with dullness upon percussion in the flanks; hyperresonance in the mid-line, shifting dullness with change of position. The liver was enlarged to the level of the iliac crest, also to the left and to the line of the umbilicus. There was tenderness over the splenic area. X-ray report: the preliminary film of the abdomen showed the kidneys to be normal in position and size and no opacity suggestive of genito-urinary stone. The liver showed gross generalized enlargement. There was gas throughout the gastro-intestinal tract. Examination of the gallbladder region following the ingestion of the dye showed no shadow at any time and no opaque stone. Conclusion: Gross liver enlargement; failure of the gallbladder to visualize would of course be considered evidence of gallbladder pathology or liver disfunction. The patient died 13 days after admission.

Preoperative diagnosis: abdominal ascites; obstruction of the cystic duct; tumor in the upper right quadrant; carcinoma of the liver. Operative findings, gross: the gallbladder was enlarged, about 5 inches in diameter and filled with a greenish fluid; there was some obstruction of the common duct. The gallbladder was aspirated and 400 cc. of fluid was removed. A drainage tube was sewn in place and brought out through a stab wound. The liver was hard and extremely dark in color with various sized nodules over the entire surface; these nodules were hard and yellowish grey in color. Post-operative diagnosis: carcinoma primary site: bile ducts, ampulla of Vater, head of pancreas, with obstruction of the common bile duct. Autopsy report: carcinoma, primary site bile ducts, ampulla of Vater or head of pancreas with occlusion of the common bile duct, visceral evidences of jaundice and metastases to the liver, peri-portal lymph nodes, peri-aortic lymph nodes and duodenum; evidences of cholecystotomy, laporatory; abdominal ascites; dermoid cyst of right ovary; hydatid cyst of Morgagni, right; post-climacteric atrophy of left ovary; sub-mucous leiomyoma of the uterus; edema of the skin and subcutaneous tissues of the lower extremities; anodontia; toxic changes in the viscera; atherosclerosis of the aorta and iliac arteries. Post mortem microscopic report: adeno-carcinoma of the small intestine, liver, pancreas, gallbladder, and lymph nodes. The stomach, spleen and kidney are not involved; the spleen was congested; kidney and suprarenal glands showed interstitial changes; benign leiomyoma of the uterus; chronic simple catarrhal inflammation of the urinary bladder; generalized atherosclerosis.

Case 5. A married woman, aged 44, was readmitted to the hospital after a mastectomy some weeks previously. She was in a serious condition with the entire left chest flat to percussion. A diagnosis of generalized visceral carcinomatosis was made. X-ray report—stereoscopic examination of the chest showed the entire left chest to be dense, especially in the lower half. At the level of the first interspace there was seen an area of lessened density about one inch in diameter which most probably was due to pneumothorax. The right chest was clear. Conclusion: Findings in the left chest give the appearance of fluid accumulation in the lower half. There was no demonstrable tumor mass, however this possibility could not be ruled out. Autopsy summary: Carcinomatosis involving the left lung, peri-aortic lymph nodes, suprarenal glands, peri-pancreatic lymph nodes, perigastric lymph nodes, sigmoid colon, spleen and liver; bilateral hydrothorax; compression atalectasis left lung; chronic pulmonary emphysema; fibrinous pleuritis (left); atherosclerosis of the aorta, coronary and iliac arteries; fibrous pleural adhesions (bilateral); acute cholecystitis superimposed upon; chronic cholecystic disease with complete occlusion of the cystic bile duct; abdominal ascites; chronic endocervicitis; post-climateric atrophy of the uterus; evidences of previous mastectomy with drainage; bilateral arcus senilis; healed mesenteric lymphadenitis with calcification; accessory spleen. Microscopic report: Carcinoma of the breast with extensive invasion of the lungs and abdominal viscera including the liver, spleen, diaphragm, pancreas and lymph nodes, duodenum, suprarenal glands, and colon; chronic interstitial changes in the kidneys and myocardium; atherosclerosis.

19 West Seventh St.

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The Ovarian Hormones

The physician has developed an intense interest in the ovarian hormones because of the frequency of ovarian disturbances is much greater than most of the other endocrine conditions met with in clinical medicine.

There are two types of these hormones: the estrogenic or endometrial proliferate hormone and the luteal or secretory hormone. These hormones, together with the gonadotropic hormone of the anterior pituitary gland control the menstrual cycle. The exact mechanism that occurs in menstruation is not known. For that reason, even though we have potent ovarian hormones, treatment with these hormones in menstrual disturbances has not been very satisfactory.

The estrogenic hormones have a definite action in stimulating the development of the accessory sex characters in the female. These changes are usually very temporary and have a tendency to disappear when the hormone is withdrawn.

There are only two definite indications for the use of estrogens in therapy. These are gonorrheal vaginitis in children and in the treatment of the menopause in females.

Treatment can be administered by injection, by inunction and by the oral route. The choice of treatment would be determined by the expense or by the need for a quick response.

The other ovarian hormone is progestin or progesterone, and it is the hormone produced by the corpus luteum. The effect of this hormone on the endometrium after the estrogenic hormone has caused the proliferative changes completes the menstrual changes.

It has been used for dysmenorrhea and the functional types of bleeding that occur in the menses and in the menopause. Any beneficial action in these cases is very doubtful inasmuch as we know very little about the cause or causes of functional uterine bleeding.

The only reasonable indication for the use of this hormone is in cases of threatened or periodic abortion. In the first instance the therapy must be carried out over long periods and its use is expensive. Either the injectable or the oral forms of therapy can be tried.—Max Hoffman, M.D., Saint Paul; Minnesota Medicine, Vol 25, No. 1, January, 1942.

Treatment of a Patient With Type No. 17 Pneumococcic Meningitis: Recovery

CARL W. KUMPE, M.D., and ROBERT G. COOK, M.D.

RECOVERY from pneumococcic meningitis, even though treated with specific serum and sulfonamides, is not yet common. The mortality rate of the pneumococcic meningitis cases in the metropolitan area of Cincinnati remains above 90 per cent in the past five years.[1] Recovery in the reported cases has occurred in those cases which have received early treatment. Coma is a sign usually associated with a very unfavorable prognosis. For that reason the recovery of the following case[2] is reported.

The Authors

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CASE HISTORY

A.K. (B.M.H. No. 23797) was a fifty-year-old white housewife who had been having symptoms of a "head cold" and an acute bronchitis for 10 days before admission to the hospital. She gradually improved but three days before admission she complained of severe left earache. She was given "ear drops" by her private physician and she appeared to improve. Thirty hours before her entrance to the hospital she suddenly vomited her evening meal and complained of severe headache. Ten hours before admission the patient became comatose.

On admission to the house medical service, 2-8-41, the patient was acutely and critically ill. Her temperature was 105°F. (rectally); respirations were 30; pulse rate was 110. She was cyanotic and comatose but very restless. All the classical neck and leg signs of meningitis were present. A thin bloody discharge was present in the left ear; the ear drum was thickened; scarred and dull, and the inferior half covered with dried blood. The right ear drum was retracted but otherwise normal. The pupils were contracted and the fundi not seen. The lower lobe of the left lung revealed diminished resonance and breath sounds with diffusely scattered fine clicking rales. The percussion over the lower lobe of the right lung approached dullness; a friction rub was present in the axillary line; breath sounds were tubular in scattered areas, and the fine rales were heard over this entire lobe as well as over a portion of the right middle lobe. The bladder was greatly distended. The remainder of the physical examination was not significant.

DIAGNOSIS AND TREATMENT

At spinal puncture the pressure was over 500 mm. of water and the fluid was turbid. The cell count was 1100 per cu. mm. with 96 per cent polymorphonuclear cells. On direct smear gram positive diplococci were seen far outnumbering the cells in each field. Direct typing of the spinal fluid showed the organisms to be Type No. 17 pneumococci. Eight grams of sodium sulfapyradine were given intravenously within four hours of admission as well as intravenous fluids. A Levin tube was passed through the nose into the stomach and nutritious fluids as well as sulfapyridine were given hourly through this tube. The patient was placed in an oxygen tent.

By the second hospital day the rectal temperature was 99.8°F. but the patient seemed to be unimproved. The spinal fluid pressure was again over 500 mm. of water and the cell count was 8000 per cu. mm. The fluid contained myriads of organisms. On this day 100,000 units of antipneumococcic serum were given. The sputum contained Type No. 17 pneumococcus. Cultures of the blood and of the left ear were negative. X-ray studies of the mastoids revealed a sclerosis of the mastoid cells on both sides. Because of the sclerosis acute change could not be discerned. On the fifth hospital day another 100,000 units of antipneumococcic serum were given the patient. The outline of the treatment is seen on the accompanying chart, as well as the results of the laboratory tests.

The patient remained in coma six and one-half days, when she began to respond when shaken. Until this time her condition was so critical that a hopeless prognosis was held. After starting to respond, the patient steadily improved and signs of meningitis disappeared. However, the signs of pneumonia cleared slowly over the first 18 days.

As can be seen on the chart, intensive treatment by sulfapyridine and specific antiserum was used. Chemotherapy was greatly prolonged because of the known tendency to relapse in pneumococcic meningitis; she received 193 gms. of sulfapyridine in 28 days. With the prolonged chemotherapy no evidence of renal failure appeared, although all urines were chemically positive for blood as long as the drug was administered; the blood urea nitrogen was 10.5 mgm. per cent just before chemotherapy was discontinued. Blood was given as a supportive measure. She was removed from the oxygen tent after 10 days of continuous treatment. Lumbar puncture was done whenever indicated to relieve restlessness; five punctures were done within the first 48 hours and the pressure was reduced roughly to one-half of the initial reading but no attempt was made to drain the canal. On the sixth day of the disease the spinal fluid culture was negative and the cell count had fallen to 750 per cu. mm. On the twenty-second hospital

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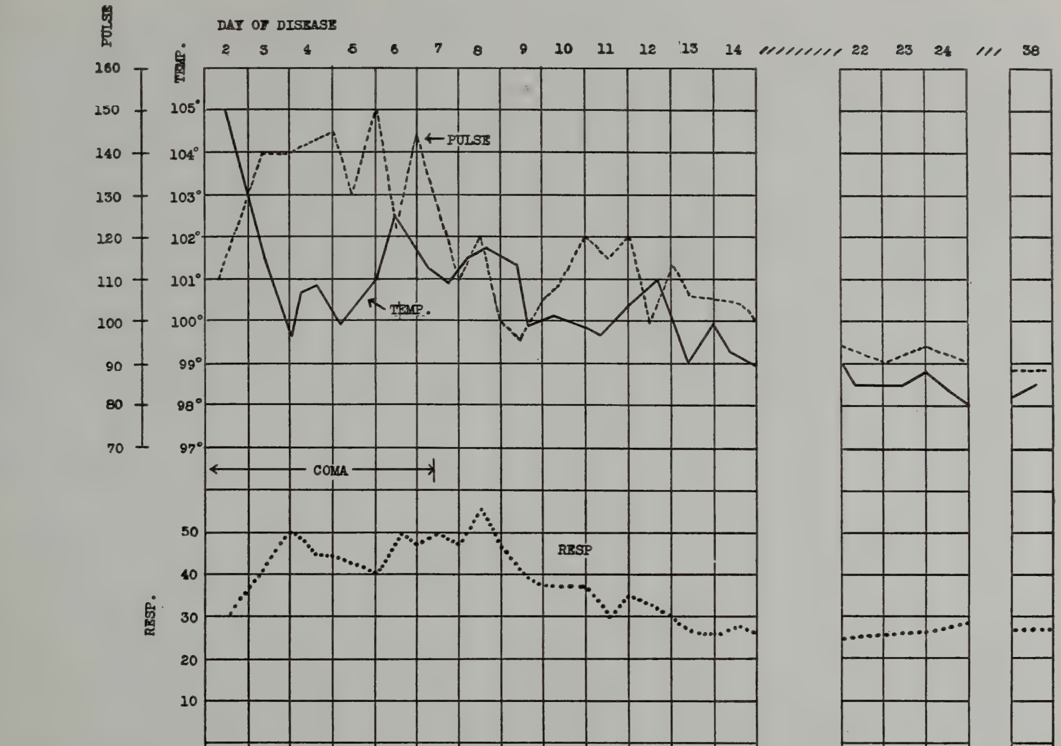
[1] Personal communication of Dr. J. M. Ruegsegger.

[2] From Medical Department, Booth Memorial Hospital, Covington, Kentucky.



	2	3	4	5	6	7	8	9	10	11	12	13	14		22	23	24		38
TYPE 17 SERUM (units in thousands)		100			100														
SOD. SULFAPYRIDINE-gms.	8	6	6	4	4	4	4												
SULFAPYRIDINE-gms.		4	6	6	6	6	6	9	9	9	9	9	9	42 (7 DA.)	3	3	3	18 (6 DA.)	
BL. CONC. OF S-P			6.3	9.6	5.0		2.8				2.0								
SP. FLUID CONC. OF S-P				5.6															
BLOOD TRANSFUSION IN CC.					500	500	500		500										
W. B. C.	22000		26500		18000		14000	10000		13000			9600		9000				8500
SP. FLUID CULTURE	TYPE 17		TYPE 17		NEG														
SP. FLUID CELL COUNT	1100	8000	3700	2200	750											7			5

day the spinal fluid still had a positive Pandy's test and seven lymphocytes per cu. mm. On the thirty-eighth hospital day the spinal fluid showed a negative Pandy's test and five lymphocytes per cu. mm. Much importance is placed on the fact that the patient received adequate fluid, caloric and vitamin intake by means of the Levin tube when otherwise only parenteral treatment could have been employed.

The patient left the hospital after 39 days of treatment and observation. She has been seen in our clinic several times during the past three months following discharge and shows no apparent neurologic, psychic, or physical damage as a result of her illness except some impairment of hearing in her left ear.

SUMMARY

Recovery of a case of Type No. 17 pneumococcic meningitis is reported. In spite of an almost hopeless prognosis (widespread pneumonia, an acute left otitis media, and coma of six and one-half days duration) the disease was brought under control by intensive treatment. Therapy consisted of serum, sulfapyridine, and the maintenance of adequate nutrition.

Tuberculosis does not recognize appeasement. Only through the cooperation and alertness of all can we stop this needless sacrifice of life. Each case of tuberculosis is a result of the carelessness of another case. We have no known specific that can be used to break this vicious cycle rapidly, but our known available means, if properly used, will slowly eradicate this disease.—Alfred M. Dietrich, M.D., Delaware State Med. Jour., Aug., 1941.

Pustular Psoriasis

Report of a Case

B. P. PERSKY, M.D.

IN 1930[1] Barber outlined the features of pustular psoriasis, and mentioned its occurrence on the thenar eminences of the hands and insteps of the feet. He described it as a reddened patch of skin in which are studded pinhead-sized intraepidermic pustules, the majority of which dried, and then gave rise to brown scales. Barber summarized the histologic features of psoriasis vulgaris, showing the similarity of pustular psoriasis to those of psoriasis vulgaris.

He emphasized the point that the only difference between the two lesions was one of quantity in the respect that the leukocytic infiltrate seen in pustular psoriasis was far greater than that seen in ordinary psoriasis. The Munro-Sabouraud abscess of ordinary psoriasis manifested itself as the epidermic pustule seen in pustular psoriasis according to Barber. Furthermore, it was his opinion that pustular psoriasis represented not an infection supervening upon ordinary psoriasis, but rather a process which is inherent in ordinary psoriasis and which reflects a greater degree of infiltration into the dermis and epidermis than is seen in ordinary psoriasis.

The identity of pustular psoriasis with ordinary psoriasis was again emphasized by the histologic features of a case reported as pustular psoriasis by Omens and Tobin.[2] The findings in their case showed typical psoriatic changes with a large epidermic pustule and lymphocytic infiltration in the corium.

At a meeting of the Dermatology Section of The Royal Society of Medicine in November, 1932,[3] Barber presented a case of recurring pustules on the hands and feet, which had dried and manifested themselves as brownish epidermic scales. In the discussion which followed, Roxburgh stated that while the majority of similar cases reported in the past had not presented ordinary psoriasis elsewhere on the body, he felt that the lesion of pustular psoriasis was a manifestation of true psoriasis.

Adamson was inclined toward the view that it was not psoriasis. Heath, at the same meeting, asked whether any school of dermatologists had considered the pustular lesion described by Barber as pustular psoriasis.

In 1934 Bloom[4] reported four cases of an erythematosquamous eruption which were characterized by recurring flat pustules situated on an erythematosquamous plaque found on the palms and soles. In two of these cases biopsy revealed findings similar to those described by Barber. In all, mycologic studies gave negative results. He reaffirmed the belief of Barber that pustular psoriasis differs from ordinary psoriasis only in the greater degree of cellular exudation, and that the pustule of pustular psoriasis is the result either of the enlargement of the Munro-Sabouraud abscess, or the conglomeration of a number of such microabscesses. He quoted Haslund, who defined psoriasis as a process of suppuration and who "considered exudation and the formation of abscesses as the most characteristic change of the epithelium of psoriasis."

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Bloom[5] pointed out that while the pustules of pustular psoriasis appear and disappear, the plaque in which the pustules are studied remains recalcitrant to treatment.

The question of the sterility of the pustules is still a matter of much debate.

Stokes[6] stated that he thought a good many of these patients showed either hemolytic staphylococcus infection at the start, or acquire them as a complication.

Parkhurst[7] stated that pustular psoriasis can be differentiated from secondary infections of the palms and soles by the fact that cultures in the former are sterile, while this is not true in the latter.

Mitchell[8] has stated that according to all observers who have studied the lesions of pustular psoriasis, they are sterile.

Mac Kee[9] has listed sterility of cultures as one of the features of pustular psoriasis.

The following case is reported because of the occurrence of a case of pustular psoriasis in a patient presenting lesions of ordinary psoriasis, and because the lesion yielded the Staphylococcus haemolyticus.

REPORT OF A CASE

H.G., an unmarried female, age 37, consulted me during February, 1941, because of an itching

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Submitted October 8, 1941.

eruption on her left foot. She stated that two months previously she first noticed the itching along with the appearance of a red area on the instep in which the saw "blisters." The red area has remained about the same size, though some of the blisters dried and left brown scales. She had received no treatment for this eruption.

About 12 years ago she first noticed an eruption which appeared on the elbows, the anterior surface of the thighs, and on the scalp. For this eruption she used salves purchased in the drug stores with relief, although the eruption has recurred from time to time. These recurrences have not been related to the season.

Her past history revealed a "nervous breakdown" at the age of 18 which lasted for about a month.

The family history was negative. No one in the family has had any manifestations of psoriasis, eczema, or any form of allergy. She had not been taking drugs internally.

Examination revealed a well-nourished female. The physical findings were negative except for the eruption described as follows: On the scalp, particularly at the hair line, on the back of the neck, the extensor surface of the elbows, and the thighs, there was a discreet papulosquamous eruption, consisting of papules varying in size from a pinhead to three centimeters in diameter. These papules were covered by a silvery nonadherent scale. Scraping the lesion elicited bleeding points.

The fingernails showed the pittings seen commonly in psoriasis.

On the plantar surface of the left foot, at the lateral border of the instep, there was a rectangular shaped patch of erythematosquamous character, two and one-half by five centimeters in size, in which were studded pustules of pinhead size. At the periphery of the lesion there were three or four small brown crusts. There were no satellite lesions outside of the borders of the patch.

Laboratory tests on the urine and blood revealed normal findings. The precipitation test for syphilis was negative. Material from scrapings inoculated on Sabouraud's Agar produced no growth. The content of one of the pustules was streaked on a blood-agar plate. Forty-eight hours later a hemolytic Staphylococcus organism was recovered.

Biopsy taken of the lesion on the foot showed hyperkeratosis of mild degree throughout, with some increase in the granular layer. This latter feature disappears in the central portion where the granular layer is scarcely visible, and where there is found an epidermic pustule situated between the markedly-thinned granular layer and the horny layer. Here, also, the acanthosis is quite regular. Adjacent to this area and flanking the pustule on both sides there is parakeratosis with thinning of the granular layer. The pustule is situated within a cavity containing much necrotic material. There is very little edema of the epidermis, but there is seen considerable polymorphous infiltrate. The basal layer is not disturbed. The blood vessels in the papillary layer of the corium are moderately dilated and in the area beneath the pustule, there is considerable round cell infiltrate.

The lesions elsewhere on the body yielded readily to crude coal tar ointment. However, the lesion on the foot failed to respond to this treatment. This lesion was then treated with 5 per cent salicylic acid in 70 per cent alcohol for the purpose of exfoliating the horny layer and aiding the drainage of the pustule before Roentgen therapy was instituted. The foot was then subjected to three weekly treatments of 75 Roentgens of unfiltered X-ray, during which time no other treatment was administered. After each treatment new crops of pustules appeared.

During the last three weeks, the lesion has been under treatment with the following ointment of Dreu:

Salicylic acid	4.00
Chrysarobin	4.00
Ol Rusci	30.00
Sapo Mollis	30.00
Anhydrous wool fat	30.00

The pustules have completely disappeared, and the plaque in which they were studded has gradually diminished in size.

SUMMARY

1. A case of an intractable pustular dermatosis of the plantar surface of the foot in a patient with ordinary psoriasis is reported.

2. The histologic features of the lesion identify it as one similar to those described by Barber and Bloom as pustular psoriasis.

3. Staphylococcus haemolyticus was cultured from a pustule of the lesion.

4. The result in this case following Roentgen treatment furnishes proof that X-ray is contraindicated in pustular psoriasis.

5. A simple method of treating this very recalcitrant lesion is presented.

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Only rarely does a member of the intimate family of a tuberculosis patient have a negative tuberculin test.—J. B. Bohorfoush, M.D. and Pauline Michael, M.D., Amer. Rev. of Tuber., Oct., 1940.

Congenital Dermoid Cysts of the Nose

RAYMOND S. ROSEDALE, M.D.

CONGENITAL dermoid cysts of the nose may be defined as those cysts of dermoid structures which are present in the nose at birth. These cysts are quite uncommon. The greatest single number of cases reported that the author could find are those described by New and Erich,[1] who reported 13 cases. These writers stated that from 1910 to 1935, 1,495 patients who were examined at the Mayo Clinic had dermoid cysts. Of these, 103 patients or 6.9 per cent had dermoid cysts in the head and neck. These did not include the cases of intracranial dermoid cysts. Among the 103 cases, 13 were diagnosed as dermoid cysts of the nose. Nine involved the bridge or dorsum. One was in the tip of the nose. Two involved the base of the columella, and one was in the nasal septum. They varied from four millimeters to 2.5 centimeters in diameter and averaged one centimeter. The majority of their cases began as a small nodule or white papule which later became red or bluish in color. Most of them were periodically infected. In six of the nine cases involving the dorsum of the nose, the lesions were present at birth. In the other three the lesion was noted during infancy.

Single cases also have been reported by Cambrelin,[2] Powell,[3] and Trampman.[4] Two cases, one in a boy aged six and one in a boy aged four were reported by Porto.[5] F. Webster Furniss[6] reported the most unusual coincidence of mesial dermoid cysts of the nose occurring in twin boys. C. E. Benjamins[7] reported five cases of congenital cysts of the nasal dorsum which could be considered as dermoid cysts. He used lipiodol to delineate the extent of the lesions. In one of his cases there was contact of a portion of the cyst with the dura. Hagens[8] reported a case of dermoid cyst of the dorsum of the nose in which there was an upper prolongation extending over the forehead. He stated that he could find only three reported cases of dermoid cysts in the American literature.

The pathology of congenital dermoid cysts of the nose is rather simple. They are inclined to be ovoid but may be flattened in contour with the overlying skin. They all begin in the midline, and most all are in the dorsum of the nose. Lederer[9] states that dermoid cysts are occasionally found at the floor of the nasal vestibule. Their contents characteristically are cheesy, semi-solid material, such as is found in other dermoid cysts in other locations. When infection is present, this gives way to fluid pus. Like dermoid cysts in other parts of the body, they present a clean line of cleavage on dissection, unless repeated infections have given rise to peripheral fibrosis.

Dermoid cysts are always unilocular. Their lining is often slightly granular, gray in color, and may have slight projections of tissue into the lumen. In the sebaceous material there may be hairs which are not necessarily of the same color and texture as the hair of the host. The histology of these cysts is fairly uniform. Most frequently there is a flattened stratified squamous epithelial lining, which is sometimes desquamating. Peripheral to this there is usually a delicate fibrous capsule. In the wall of the cyst may be found sebaceous glands and sometimes hair follicles. The blood supply of the cysts is rather poor. In some sebaceous cysts there is metaplasia of the epithelium to the columnar type. The presence of infection, of course, adds the histologic elements of exudative or productive inflammation depending upon the stage. Ewing[10] states that secondary changes in dermoid cysts are frequent and include papillary growths, suppuration, rupture, overgrowths of dermal structures and neoplastic changes.

Regarding the etiology of congenital dermoid cysts of the nose, Furniss[6] states that failure of coalescence of the two medial nasal processes to form the nasal septum, the columella, the medial portion of the upper lip and premaxilla, may give rise to nasal cysts, fistulae, bifid nose, as well as a more common true median hair lip, cleft, or notched premaxilla, and he thinks that this failure can also account for epithelial inclusions of the dermoid cyst type. These medial nasal processes usually fuse during the second week of the development of the embryo.

Luongo[11] has offered the following opinion in regard to the developmental pathology of dermoid cysts of the dorsum of the nose: "In the early embryo, the frontonasal plate which forms the nose consists of a lamina of hyaline cartilage covered externally with skin and internally with mucosa. After three months the bony structures

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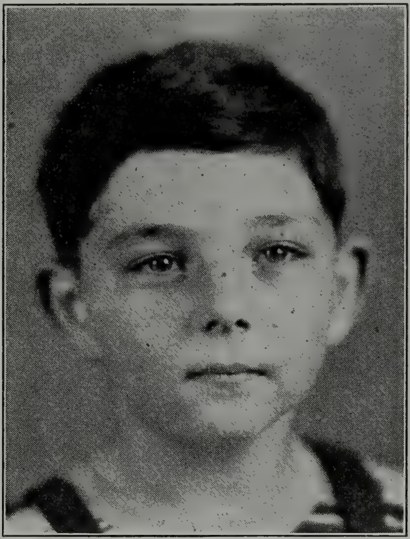
Submitted September 12, 1941.

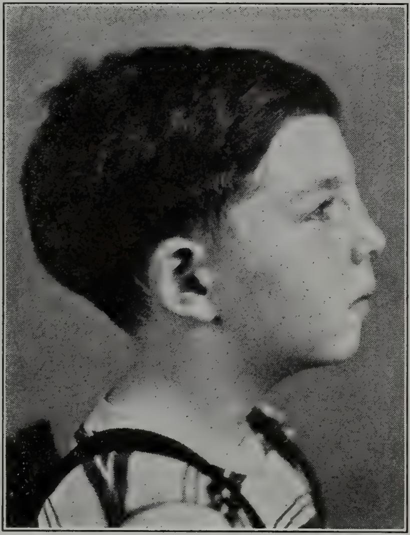
extend between the cartilage and the skin (to form the nasal bones). The cartilage becomes absorbed as the bone ossifies during the gradual separation of the skin from the cartilage of the frontonasal plate. By the intrusion of the nasal bones, small portions of the skin, or epithelium, become sequestrated and develop into dermoid cysts". These two theories are similar in principle and possess the common axiom that simple dermoids represent inclusions of a portion of ectoderm during the closure of embryonal fissures. (Ewing[10]).

In regard to differential diagnosis between dermoid cysts and the sebaceous cysts, Foote[12] states that dermoids occur more often in infancy and childhood whereas sebaceous cysts are rare in childhood. He states that sebaceous cysts are always attached to the skin whereas dermoids are covered by freely movable skin. Sebaceous cysts are movable in the skin and with the skin, whereas dermoids are usually attached to the underlying structures. He states that if the cyst contains hair, the diagnosis of a dermoid cyst is certain. However, I have seen proved dermoids in which hairs were absent.

Treatment of nasal dermoid cysts consists of total excision. The cysts should be removed not only because they are deforming but also because they are frequently infected. Lipiodol delineation of the cysts prior to operation is a useful and simple procedure, and helps in the search for all portions of the cyst. If the whole of the dermoid cyst is not removed it will recur. Sometimes there are cord-like extensions or nubbins of tissue, which extend peripherally from the wall of dermoid cysts. These should also be removed as they are capable of producing daughter growths. When there is a sinus extending into the dermoid cyst, this should be removed by elliptical incision around it at the time that the linear incision is made, and the sinus stalk should be removed intact with the cyst. The actual removal of a cyst is usually accomplished by blunt dissection. If after exenteration there is any question about the complete and total removal of the cyst wall, the remaining cavity should be cauterized chemically.



Anterior view of patient showing pit with stubby hairs projecting therefrom. Note widening of nose.



Lateral view, unretouched, showing hairs springing from pit on dorsum and illustrating the deformity in the region of the right inner canthus, which was the result of infection.

On June 8, 1939, a boy, aged 4, with a dermoid cyst of the nose was referred by Dr. Charles Greene.

The patient's mother stated that at birth of the child, a pin-head sized swelling was noticed on the dorsum of the nose at about the level of the inter-pupillary line. She described this as resembling a "blackhead". When the child was six months of age, the lesion had enlarged and became red. It was treated with electric cautery and disappeared for a while. However, later redness and swelling appeared on the right side of the nose near the inner canthus. The mother stated that then the paranasal swelling was as large as a marble and was associated with some swelling of the right eyelid. Hot applications were used and after about a month the mass developed an opening from which yellow material was discharged. The mother affirmed that from that time, at least three occasions the swelling of the right side reappeared and was followed by a similar discharge. On the last occasion the swelling extended over the dorsum of the nose and appeared in relation to the left inner canthus. Coincident with, and following each of these attacks of inflammation, drainage was manifest from the original lesion on the dorsum. Since birth the dorsum of the nose seemed wider than usual and there were coarse, black hairs springing from the center of the nodule.

Examination disclosed a generally well developed, alert, intelligent, cooperative child appearing to be about four years of age. On the dorsum of the nose on a level with the margin of the lower eyelids, there was a pitting of the skin about 3 millimeters in diameter. From this projected coarse, stubby, black hairs for a distance of about two millimeters. The skin immediately surrounding the pit, for a diameter of 1.3 centimeters was slightly reddened and shining. Superior to the pit, a rubbery subcutaneous mass about 1.8x1.5 centimeters could be felt. This extended laterally to be somewhat in relation with the midpart of the right nasal bone. The skin over the right nasal bone was red and adherent to the underlying structure, and as can be seen by the accompanying photograph, there was a distinct depression tightly bound down to the subjacent structures by former inflammations. The inter-orbital portion of the nose was unusually wide. The septum in the vault of the nose was widened. Other than the presence of chronic tonsillitis, the remainder of the head and neck examination was negative. The child was not returned to the office until 22 months later, at which time the mother stated that there had been several attacks of inflammation followed by yellow discharge since the first visit. On this occasion the parents agreed to the removal of the cyst.

Accordingly, on May 21, 1941, with continuous ether vapor anesthesia, a longitudinal incision over the prominence of the dorsum, two centimeters long, was made through the skin. This encircled the pit and its contained hairs. The skin was reflected by dissection and the cyst exposed over the dorsum. It was then carefully dissected from the dorsum and both sides of the nose. The cyst extended well into relationship with the right inner canthus and was inferiorly invaginated into the superior portion of the septum. The dissection was difficult because of the dense fibrous connective tissue about the cyst, particularly on the right side. The cyst, stalk, and pit were removed in toto and the margins of the wound closed, and retained with fine synthetic sutures. A pressure dressing was applied. The stitches were removed on the fourth day. The cosmetic result was good.

At the time of the present writing, approximately four months later, there has been no sign of recurrence. The deforming depressed scar over the right nasal bone is not so apparent. There has been no evidence of the former pit nor any swelling, nor hyperemia. Two very fine hairs, resembling the downy hairs found on other parts of the patient's face, were removed from the superficial layers of skin near the former incision. Histologically, the lining of the cyst was composed of flattened, stratified squamous epithelium with a border of mature, fibrous connecting tissue. A few small sebaceous glands were present. No hair follicles were seen. The pathological diagnosis was dermoid cyst.

SUMMARY

A case of congenital dermoid cyst of the dorsum of the nose, in a child aged 4, has been described. The gross pathology, the microscopic anatomy, the incidence, treatment, diagnosis, and theories of development of these cysts have been discussed briefly.

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Butter

Most recent research has revealed a new factor in butter, as yet unnamed. The substance has never been isolated, and although work is now going ahead rapidly on it, all that is yet known is that young animals grow much better when supplied with it than when fed only vitamins A and D and supplementary fats of a non-dairy origin.

The digestibility of butter is uniformly good. All fats with a low melting point are easy to digest, and butter is in this class of fats, ranking second only to fish liver oils in ease of digestion and completeness of utilization. Besides, butter on digestion yields fatty acids of low molecular weight, which play an important role in the process of metabolism.

About two ounces of good butter daily will supply the vitamin A requirements of an average child, and two to three ounces of butter with a pint of whole milk daily will be quite adequate for an adult's vitamin A requirements. Butter is not to be depended upon alone for an adequate supply of vitamin D, although its value as an accessory source of vitamin D is very important. Just what amount of the newly discovered "butterfat growth factor" is required for normal growth, and to what degree butter is adequate in supplying it, have not been established. However, research indicates that butter may prove adequate to supply man's requirements of this substance.

The importance of the nutritional value of butter was not always as fully recognized as it is today. Scientists had known for years that fats are needed for human growth, but until the early part of this century, when E. V. McCollum made his first studies at the University of Wisconsin, little else was known, and no attempt had been made to determine which fats are needed and why.—Chris L. Christensen, Madison; The Wisc. M.J., Vol. 41, No. 1, January, 1942.

Lymphogranuloma Inguinale

BERT SELIGMAN, M.D.

LYMPHOGRANULOMA inguinale or lymphopathia venereum is a venereal disease usually transmitted by sexual contact. It has been contracted innocently by surgeons who have operated upon infected individuals, and also by infants and children who have slept with persons who unknowingly have harbored the disease factor. The etiological agent responsible for the production of the disease has been identified as a virus[1] capable of producing virucidal antibodies[2] in the blood serum of infected men and animals.

It usually initials its appearance in its host by an evanescent penile or pudendal abrasion (lymphogranulomatous chancre[3]). This stage might be called the surreptitious primary stage since it is hardly ever recognized either by patient or physician for what it really represents. This stage requires three to seven days to complete its course. The next stage may require days to months for its appearance which is heralded by unilateral or bilateral involvement of the inguinal lymph nodes—the characteristic bubo. The bubo has at varying stages in its development, areas of softening and of induration. Eventually the bubo may break down, and drain through multiple fistulous tracts. Prior to the appearance of the bubo, the virus which has entered[4] the body is taken up by the reticulo-endothelial system, and the cells of the lymphatic system, and distributed by them. Once this process has taken place the disease spreads over months, sometimes only a few weeks and rarely years.[5] In the female, the bubo may never make its appearance and the first intimation that the disease is present is rectal stricture and/or esthiomene.[6]

CONSTITUTIONAL SYMPTOMS

During the stage of lymphoid involvement the constitutional symptoms are represented by[6] chilliness, lassitude, dizziness, joint and muscle pain, headache, nausea and vomiting, mild anuria, loss of weight, occasional stiff neck or meningeal irritation with various skin manifestations, such as erythema multiforme or erythema nodosum. Splenomegaly may occur, and with it there may be enlargement of the iliac nodes.[7]

The superficial inguinal lymph glands are usually the first to be attacked by the disease process which, steadily though slowly, produces a mass which may reach the size of an egg or lemon, new lymph nodes becoming involved as the disease progresses. The glands thus involved produce a generalized adenitis which acts to mat together all lymphoid tissue in the adjacent area. This mass usually breaks down and drains, a thin seropurulent fluid for weeks or months, through multiple fistulous tracts.

The Author

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In some chronic cases due to the production of sufficient scar tissue there is never any suppuration or formation of fistulous tracts. It is in these chronic cases that the perirectal adenitis occurs with the possible formation of a rectal stricture, which might necessitate surgical intervention.

This, in brief, represents the clinical course of the disease known as lymphogranuloma inguinale. It occurs as frequently in the white as in the Negro, the male as the female. The history, physical examination, and clinical course should point to the diagnosis which can be confirmed by the application of the Frei test.[3] This test originally was based on the fact that diluted bubo pus, heat killed, could be injected intracutaneously, and elicit a cutaneous reaction, pathognomonic of the disease.

Since the original work of Frei, Sulkin[8] has done work with yolk sac antigen (Lygranum), which indicates that it is far superior to any other medium in eliciting the Frei test, due primarily to the comparatively few non-specific reactions produced with the egg control material.

The disease must be differentiated from chancroid, syphilis, Hodgkin's disease, tuberculosis, granuloma inguinale, malignant growths, and pyogenic infections.

The most difficult differentiation lies between lymphogranuloma inguinale and granuloma inguinale. The latter is essentially a disease of the skin. It first manifests itself as a tiny macule either on the genitals or in the region of the external genitalia. The process spreads by contiguity either from the groin or genitalia, to the abdomen and thighs. It is a chronic ulcerative and destructive process, producing granulation tissue in its wake. The process is never complicated by the production of a bubo, except in those cases where there is a concurrent lymphogranuloma inguinale infection. It occurs predominantly in the colored race, rarely in the white race. Smears taken from the diseased tissue will show large endothelial cells, with intra and extra cellular Donovan inclusion

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Submitted October 14, 1941.

bodies.[9] D'Aunoy[10] states that a further differential diagnostic point is a therapeutic one, i.e., use of antimony and potassium tartrate, which is almost a specific in granuloma inguinale, and a flat failure in lymphogranuloma inguinale.

Chancroid is characterized by a soft chancre from which the bacillus of Ducrey can be isolated. Syphilis can be ruled out by a dark field examination of material taken from a suspected Hunterian chancre for the Spirochaeta Pallida, and by a positive blood Wassermann, and the clinical symptoms; Hodgkin's by a pathological examination of an excised node; tuberculosis by its presence elsewhere in the body, positive skin test, and the characteristic microscopic picture which tuberculous tissue produces. Malignant growths prove themselves by biopsy, and pyogenic infections by isolation of the causative offending organism.

ERRORS IN DIAGNOSIS

Case No. 1. W.R.W. Colored male age 22. Former steel worker admitted to the hospital on April 2, 1941, with a mass in the right groin of one weeks duration. Had gonorrhea at 16 which was treated by a physician who discharged the patient as cured. There was a mass about the size of an egg in the right inguinal region which was exquisitely tender on palpation. Physical examination was otherwise essentially negative except for a small umbilical hernia. On April 9, 1941, the mass became fluctuant and was incised, about one tablespoon of thin seropurulent material being drained out. The wound was packed with sulfathiazole powder, and on April 25, 1941, had so completely healed, that the patient was discharged as cured with a diagnosis of suppurative adenitis, non-venereal in origin.

Second admission was on June 3, 1941, with a return of the mass in the right inguinal region as before. The mass was considered to be a bubo and the patient was Frei tested using lygranum. The reaction was strongly positive. Again the mass was incised and this time sulfanilamide was packed into the wound and also given by mouth, in full therapeutic doses. The patient was also given 50 cc. of Fuadin in ten doses intramuscularly and discharged on June 30, 1941, to be followed in the out-patient clinic. The discharging diagnosis was lymphogranuloma inguinale.

On July 1, 1941, the patient was readmitted to the hospital with nausea, vomiting, abdominal cramps, and diarrhea, all ascribed to the Fuadin. The operated area in the right groin had healed completely. The gastro-intestinal upset cleared up very quickly and the patient was about to be discharged when a small lump was noticed in the right inguinal region in the previously operated area. Frei test was done again which was very strongly positive. A lymph node was then removed from the right groin and pathological study was made. Again the diagnosis was lymphogranuloma inguinale.

Case No. 2. White male, age 52, admitted to hospital on June 17, 1941, with a lump in the left groin following an injury sustained two weeks before while lifting a tray of cups. Patient had been in the Navy 30 years and his body was almost completely covered with tattoo marks. He denied any venereal disease but admitted being a heavy drinker. He was seen first by the medical service where a diagnosis of suppurative adenitis, non-venereal, or possible malignancy of the canal or cord was postulated. After several days of expectant treatment, he was transferred to the surgical service. The mass was considered to be a bubo and the patient was Frei tested with lygranum. The reaction was strongly positive. The mass became fluctuant and on June 25, 1941, was incised. The drainage consisted of a thin sero-purulent material. The wound was packed with sulfanilamide, the drug was given by mouth and he was also given ten intramuscular shots of 5 cc. each of Fuadin. Patient's Wassermann was negative.

These cases are quoted merely to show the pitfalls one may encounter in diagnosing lymphogranuloma inguinale. Each case was misdiagnosed by the first examiners, not because of any lack of diligence on their part, but more because the condition was not suspected.

TREATMENT

Due to the undulating nature of lymphogranuloma inguinale characterized by frequent exacerbations and remissions, it is difficult to evaluate the therapeutic efficacy of the drugs used. Fuadin, sulfanilamide, and Frei antigen alone and in the various combinations, have been used with varying success. It is my personal belief that the most efficient treatment consists of sulfanilamide by mouth supplemented by intradermal injections of Frei antigen.

CONCLUSIONS

1. Lymphogranuloma inguinale is a venereal disease which can be diagnosed by the history and clinical picture, aided by the Frei test.

2. Lymphogranuloma inguinale must be differentiated from granuloma inguinale, chancroid, syphilis, malignant diseases, pyogenic infections, and Hodgkin's disease.

3. Treatment consists of sulfanilamide by mouth and intradermal injections of Frei antigen.

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Trichomonas Vaginalis Urethritis and Its Treatment

A. G. SAR-LOUIS, M.D., M.Sc. (Med.)

MANY authors have called attention to urethral involvement in cases of trichomonas vaginalis vaginitis. Others have given detailed treatment by irrigations and instillations with various antiseptic solutions. The purpose of this paper is to call attention to the fact that involvement of the urethra is more common than ordinarily supposed; to describe its symptomatology, its clinical and laboratory diagnosis, and finally, to describe a simple and effective method of treatment.

Almost every method that is now, or that has been used in the past for trichomonas vaginitis, produces or has produced symptomatic and clinical improvement. A checkup several months after treatment has been stopped, would reveal very few, if any, complete cures. Our long interest in this condition, together with a close follow-up of many cases and the experiences of others with recurrent infestations is my authority for the above statement.

Several years ago, careful investigation of cases of recurrent vaginal infestation after apparent cure resulted in proof that the urethra was the focus of this reinfestation. Since then, we not only inspect the urethra but we also strip it through the vagina with the finger and examine the expressed droplet microscopically. In more than half the cases of trichomonas vaginalis appearing in the last two years, the urethra has shown clinical signs and the trichomonads have been demonstrated in the urethral droplet. Today we treat the urethra routinely. Recurrences are rarely experienced.

A history, carefully taken where the complaint is vaginal discharge, often elicits symptoms of recurrent urinary tract involvement. Observant, intelligent patients frequently note slight discomfort on urination, frequency, occasionally they are aware of a urethral discharge. Examination of infested urethrae may reveal a slight bulging of mucous membrane (Ectropion), Skene's tubules are often seen as minute inflamed pin points on the summit of an elevated, edematous area. More often there is a punctate injection of the mucous membrane surrounding the external meatus. Urethral stripping as above described, brings to the exterior a drop of milky fluid. This discharge is removed with a small swab or platinum loop and washed into a test tube containing ½ to 1 cc. of warm normal saline. Thus diluted it should quickly be placed on a warmed slide and examined under the microscope. The motile parasites may be readily seen under low power.

Bland and Rakoff[1] have described an instillation and irrigation method of treatment. This has never been very satisfactory in our hands. We prefer insufflation with one of the parasiticidal powders. For this purpose we employ an infant powder blower (Searle). The nozzle is approximately 5/16 of an inch in diameter and is easily inserted into all urethrae. To obtain a better seal, we slide a rubber washer over the nozzle allowing its tip to project about ⅛ of an inch beyond the shoulder formed by the washer. The patient is allowed to empty her bladder and one or two quick, partial compressions of the bulk distend the urethra and disseminate the powder in all directions. Our impression is that this method more efficiently brings the antiseptic powder into the deep recesses of Skene's tubules than does any liquid that is simply instilled. It is obvious that unless a seal is made at the exterior of the meatus, the irrigating or instilled liquid is not under sufficient pressure and reaches only the surface mucous membrane.

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We have discontinued all scrubbing with tincture of green soap. We feel that the benefit obtained is slight and not worth the great discomfort produced. The introitus and vagina are dried with a cotton pledget, the urethra is first insufflated, then the vagina is likewise treated. We use Aldarsone (Abbott) for the most part but occasionally substitute Vioform (Ciba). The latter is mixed with magnesium trisillicate in the ratio of 1 to 9.

During the first week of treatment we like to carry out the procedure four or five times. During the second and third weeks, three treatments are adequate. No douches are taken and no tampons are used. The average number of treatments given to obtain repeated negative findings is twelve. In making release tests we wash the introitus and vagina with warm saline, using a long asepto syringe. A droplet of this washing is then examined microscopically. Three negative washings taken immediately after three consecutive menstrual periods are accepted as criteria of cure.

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Silicosis

MAURICE B. RUSOFF, M.D.

MOBILIZATION for National Defense has naturally stimulated an interest in industry and in industrial disease. Today we realize the necessity for a fair and equitable basis as to industries' place in the etiology of disease. A desire exists for the much needed scientific investigation into the etiology, pathology, diagnosis and prevention of some of our more recent occupational disease problems. Foremost among these is the problem of silicosis. Recognized for years, though almost unknown to the majority of the laity, and to only a lesser extent by the medical profession, it was startlingly brought into national promience as the result of the congressional investigation and antecedent newspaper publicity arising out of the alleged silicotic deaths occurring in the tunneling job at Gauley Bridge, West Virginia, in 1933. The sporadic litigation for compensation of alleged silicosis prior to this became rife and soon laws were enacted in the various states for the administration of compensation for silicosis.

Due to the peculiar wording of the occupational disease law embodied in the Workmen's Compensation Law in Ohio this was untrue here. Nevertheless, a silicosis law was enacted in Ohio and put into operation August, 1937. Since then 787 cases have been filed and 456 cases considered by the board of three medical referees provided by that law. The legislators, realizing the difficulties to be encountered, provided that all cases falling within the law be examined by three specialists, one of X-ray and the other two of internal medicine with special knowledge of pulmonary disease. My position in this problem has been purely unofficial but it has afforded me the benefit of examining all of the X-rays and many of the individuals claiming compensation for silicosis. For the purpose of simplification in judging compensability, we have arbitrarily adopted certain nomenclature for the various stages, extent and nature of the disease. These are: "Simple Silicosis", "Moderately Advanced Silicosis", "Advanced Silicosis" and "Silicosis with Tuberculosis." Since the law as it is now constituted concerns itself only with total disability, simple silicosis never, and moderately advanced silicosis rarely, if ever, fall within that category. Manifestly a knowledge of silicosis is mandatory, if any attempt be made to present our attitude toward that disease.

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HISTORY

As in the case of so many other disease entities our first description of what was apparently silicosis is found in the writings of Hippocrates. In describing the metal digger he alludes to him as having a bent right hypochondrium, enlarged spleen and a costive belly. He says: "He breathes with difficulty, is of pale, wan complexion and is liable to swelling in his left knee." This latter was either an arthritic deformity or a pre-patellar bursitis prevalent among those miners. He lists their symptoms as: (1) Constipation; (2) Shortness of breath; (3) Swelling of the knee joint. In 1557 George Bauer using the pseudonym of Georgius Agricola wrote De Re Metallica. This was in Latin and translated by ex-president Hoover. Bauer in this work advocated the ventilation of mines. He spoke of dry mines where dust enters the blood and lungs producing difficult breathing or what the Greeks call asthma. These mines were in the Carpathian Mountains "where women have seven husbands all dying young of this disease". He also mentioned the use of masks and wet drilling and noted that the disease was not contracted by the female contacts.

TUBERCULOSIS ASSOCIATED WITH SILICOSIS

Tuberculosis is first associated with silicosis in 1690 by Lohneiss when he says "stone and dust fall on the lungs—men have lung disease—breath with difficulty and die of consumption." In 1704 Ramazzini quotes description of autopsied lungs of stone-cutters which contained sand which grated on the cutting knife and speaks of the exposure of the potter of his day to flint dust. A patent granted to Thomas Benson of Newcastle in 1712 for wet grinding of flint revealed that dry grinding was very destructive to strong men permitting them to work in that field for no longer than two years before they died of silicosis. Thackrah in 1832 found that dust of every kind irritates but not to an equal degree. He said: "Bricklayers and plasterers, like asses, never die" and cites Patissius account of phthisis among stone dressers of Saint Rock—men injured by working ore in sandstone but not in limestone. The same year statistics were made relative to the prevalence of respiratory disease,

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Submitted December 31, 1941.

especially phthisis among Cornish miners with a study of 600 miners. This established the existence of a "miners' disease". In 1902 another commission for the same study brushed aside every other influence with the exception of dust inhalation as an etiological factor. Zenker coined the term pneumoconiosis as a description of this disease meaning "lung dust" from the Greek. More than 90 per cent of the work on this subject has been done since the turn of the century. In 1912 radiography was first used in the Transvaal when 326 of the 3,136 miners examined were X-rayed, showing pneumoconiosis to be prevalent in 26 per cent with 5.5 per cent doubtful. In Australia, 1919, X-ray was used as a means of diagnosis and of 4,377 examined, 193 were diagnosed as pneumoconiosis, 90 in the first stage, 44 in the second stage and 59 complicated with tuberculosis. The Australia examination of 1929 adds a rather interesting point in that no cases occurred in individuals younger than forty or with less than five years' exposure. This last is important inasmuch as it apparently served as a basis for the legal construction of the present Ohio silicosis law.

RECOGNITION OF SILICOSIS

Not until 1894 was silicosis recognized in this country. In 1917 the first detailed x-ray study of silicosis was made in the United States by Lanza and Childs. This was in part at least the basis for our present day knowledge of silicosis and the other pneumoconioses.

Inorganic dusts may be divided into three large groups dependent upon their action in and effect on living tissue. These are the absorbtive, the inert and the proliferative dusts. In the first group fall the soluble carbonates, gypsum and cement. They produce no lasting effect on tissues and are completely absorbed. The inert dusts include asbestos, carborundum and coal. Although these remain unchanged in the peritoneal cavity of guinea pigs and produce no apparent tissue change asbestos does produce fibrosis in the lung. The proliferative group contain silicon dioxide and are principally flint, quartz and the diatomaceous earths. They cause tissue necrosis and tissue proliferation. These are the etiological factors in silicosis. Before continuing with the description of silicosis I should like to add that the only two pneumoconioses causing definite lung disability are asbestosis and silicosis. This narrows the field considerably and perhaps will provoke argument. But until this is scientifically refuted we must use this as the basis for evaluating pneumoconiotic disabilities.

In 1933 the committee on pneumoconiosis of the American Public Health Association adopted the following definition of silicosis: "A disease due to breathing air containing silica, characterized anatomically by generalized fibrotic changes and the development of miliary nodulation in both lungs and clinically by shortness of breath, decreased chest expansion, lessened capacity for work, absence of fever, increased susceptibility to tuberculosis and by characteristic x-ray findings."

ETIOLOGY AND PATHOGENESIS

Silica or silicon dioxide comprises approximately 60 per cent of the earth's crust and is found in quartz, opal and flint, quartz being a constituent of granite and sandstone; opal, the colloidal form of silica, of the diatomaceous earths, and flint in pure form. The industries in which silica acts as a dust hazard are namely: 1. Tunneling and mining. 2. Smelting and refining of ore 3. Use of sand and gravel for structural purposes 4. Carving of stone. 5. Manufacture and use of abrasives. 6. Processing of free silica, i.e. glazing.

Early workers in the field of silicosis believed that injury was produced by mechanical irritation by the cutting edges of the particles. This was in part refuted by the experimental insufflation of ground carborundum whose substance is much harder and whose edges are much sharper.

This failed to produce the characteristic picture of fibrosis and nodulation. Complete denial of the mechanical action was accomplished by the demonstration of the chemical effect of the dust by the injection of silica solution into lung tissue, demonstrating the toxic and necrotic action of silica leading to proliferation of fibroblastic cells. This action is in large part dependent on the concentration and particle size of silica. Concentrations of less than five million and particles of more than 10 micron diameter in size, have been demonstrated to be inadequate for the causation of silicosis. The necessity for a certain concentration is apparent. Particles of 10 microns or more settle out of the breathing level or air rapidly or are imprisoned in the nasal passages. A healthy nose is capable of filtering approximately 60 per cent of the silica dust from the inspired air, and then the finer the divided particle the greater the surface area is presented for chemical action. Certain factors modify the action of silicon dioxide on tissue. Soaps and strong alkalis intensify the action of silica and hasten the development of the disease, while aluminum hydroxide and ferric hydroxide ameliorate its effect immeasurably. Silicon injected into tissue with these latter two hydroxides fails to produce necrosis or fibrosis.

Susceptibility to silicosis is not governed by age. It is dependent to some extent on length of exposure and definitely on concentration. Decreased respiratory reserve is a predisposing factor. Broad, stocky individuals with high diaphragms and otherwise in excellent health are particularly prone to early development of silicosis. Decreased lymphatic drainage in the form of sinus or bronchial infection and acute or chronic pulmonary disease play a striking role in individual susceptibility. While we are dwelling on the part that infection plays as a predisposing factor we must also concern ourselves with the part that silicosis plays in lowering the lung's resistance to infection. We cannot deny that it does predispose the lung to tuberculosis. Gardner says that 75 per cent die of complicating tuberculosis. It has been suggested that the silicotic nodule acts as a favorable medium for the growth of the tubercle bacillus. This is true but the bacillus grows no more rapidly or abundantly in media with an admixture of silica than in the unadulterated media. A more likely explanation is that the so necessary lymphatic drainage is destroyed by the effect of the silica on the lymph glands and channels. At the present time we are of the opinion that no other pulmonary infection occurs with greater frequency in the silicotic than in the non-silicotic. This has been a source of considerable argument. Gardner believes that pneumonia should occur with greater frequency but fails to support his opinion with any statistical data. The only complete work done on this subject, at my disposal, is in the hands of Pierpont at Ironwood, Michigan. His data reveals that there is less per capita pneumonia among iron miners than among the other inhabitants of that region.

PATHOLOGY

The pathology of silicosis is better delineated by X-ray than by the cut section. In the previously normal lung nodulation occurs whereas in the previously infected lung conglomerations manifest themselves. These later are the difficult cases to diagnose and are a considerable source of argument. This is the bizarre distribution rather than the preconceived picture of silicotic nodulation. In the uninfected lung the inspired silica is ingested by the phagocytic cell in terminal bronchioles and carried into the lymphatic channels and thence to the hilar nodes where necrosis and fibrosis occur. As this progresses lymphatic fibrosis occurs and we now have the picture of intensified hilar shadows and linear fibrosis—the so-called first stage silicosis, but, roentgenologically it cannot be differentiated from the other pneumoconioses. As the disease then progresses we have the tendency toward tubercle or nodule formation. This is perivascular and does not encroach upon the lumen of the vessels. Where infection anteceded, conglomerations occur at the site of the infection. Whether this is due to the already existent fibrosis or due to the chemotactic influence of that infected site on the phagocytized silica I do not know. With the continuance of the centripetal silicotic nodulation and increase in size of nodules there is a compensatory basilar and peripheral emphysema giving rise to the classical picture of silicosis. The nodule is merely the result of the clumping of a group of phagocytes as the result of an interruption of flow in the lymphatic channel by the fibrosis already existent there. This clump is destroyed by the toxic action of the silica and necrosis with its subsequent fibrosis ensues. Microscopically, the nodule is a fibrotic mass whose center is lamellated and hyaline resembling very closely a cross section of an onion. This nodule varies from one to six millimeters in size. Growth often continues after exposure has been terminated thus demonstrating the progressive action of silica. Eventually, however, a balance is established and growth terminates.

DIAGNOSIS

The diagnosis is dependent on the occupational history and clinical findings. Quite often the history will need supplementing with an engineering survey of the dust hazard of the employment. Petrographic dust count at the breathing level coupled with a chemical analysis of the dust thus collected is essential. Invariably the analysis of the material used is a fallacious index as to the dust hazard, principally due to the differing specific gravity and volatibility of the dust emitted. Subjectively, our patient will almost always complain of exertional dyspnea aggravated by subsequent exposure to silica dust. Orthopnea is not present. Needless to say cardio-vascular disease must be ruled out. The subject of cor pulmonale arises here. An eastern group took the stand that silicotics die of right heart failure. This is emphatically denied by Gardner who illustrates by serial sections that in silicosis without infection there is no encroachment on the vascular bed. Roesler admits this but calls attention to the loss of pulmonary elasticity and diaphragmatic action in silicotic lungs, which two factors are essenital in maintaining the lesser circulation and the loss of which should place a strain on the right ventricle.

An article in the American Heart Journal disclosed right ventricular hypertrophy in pneumoconiotic chests. In our work we have done some electrocardiographic study of silicotic cases where pulmonary infection and previous heart disease were excluded. In none of these cases have we found any right axis deviation or right heart preponderance. This work is as yet inconclusive and until we can demonstrate right heart damage we must exclude heart damage as a factor in estimating disability. These patients also complain of cough—dry, if uninfected, and wet and productive, if infection is present. The former is very likely the result of bronchial irritation. The cough is particularly oppressing if the patient returns to hazardous work after a rest period. Chest pain may or may not be present. If there is pleural involvement it is sharp. It may be dull, aching in character as the result of overactivity of the chest muscles or it may be a mere sense of compression. Hemoptysis is a rare symptom in the uncomplicated case. Weakness and loss of weight are frequently present and become more apparent as the case progresses.

Objectively, we may have a patient of essentially normal appearance. With infection respiratory embarrassment, clubbing of the fingers, retraction of the supra and infraclavicular spaces, loss of weight and increased antero-posterior diameter of the chest appear. Chest expansion decreases but this is an unwarranted observation unless it is the result of serial examinations. Local lagging of expansion is present if the result of infection. There is not infrequently a prolonged expiratory phase in respiration. On palpation we feel the tendency of the chest to lift forward on inspiration; also, a slight increase in tactile fremitus. There is a decreased resonance, general or local, depending again on infection and likewise a decreased intensity of breath sounds.

The X-ray is, of course, the principal factor in the formation of the diagnosis of silicosis. Without X-ray substantiation of the history and physical findings one is unwarranted in making a diagnosis. We find that stereoscopic films are preferable because of the third dimensional depth so necessary in the complete roentgenological visualization of the chest. Consequently, the Commission insists that individuals claiming silicosis submit stereo films along with the other proof of their disease. The x-ray shadows are dependent on the extent and type of pathology present.

DISABILITY AND TREATMENT

As the silicosis law reads in Ohio we must concern ourselves solely with total disability. If the individual is not totally disabled he is not compensated. I have seen chests so studded with silicotic nodules that it was difficult to find any normal lung between the nodules and yet those individuals were unaware of respiratory embarrassment. The lungs of one such case are in the Trudeau Laboratory at Saranac. The findings were accidental inasmuch as the patient had died of a primary carcinoma of the liver. However, if tuberculosis complicates the picture disability is total and death is dependent on the activity of the tuberculosis. Gardner has expressed the opinion that no one is ever disabled as the result of uncomplicated silicosis and that no one ever dies of silicosis. If one gives this opinion thought it is difficult to dispute either assertion. The disability is primarily due to emphysema or infection; and death is the result of infection intercurrent disease.

The treatment is essentially prophylactic. After the acquisition of the disease employment must need be terminated in work of hazardous dust exposure and any treatment must be purely supportive. The disease does not regress. Preventive medicine, here as in all other occupational diseases, must exert its authority. The physician, by his pre-employment and periodic examination, must remove all questionable chests from exposure. In addition to this, he must be the policeman of industry, supervising along with the engineering department, the reduction and, if possible, the eradication of hazardous dust.

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References to Gardner, Roessler, and Pierpont are based on personal communications.

Adequacy of Iodized Salt for Goiter Prevention

Of course there are further problems requiring attention in the manufacture and sale of iodized salt. The amounts of iodide to be added, the use of further additions to the salt for other purposes in control of quality of shaker salt, and the uniformity of iodine content during the interval between manufacture and eventual consumption require attention. Some students of these questions advise use of salt with only one part of iodine per 100,000 of salt. Daily intake of 50 micrograms of iodine would depend on use of an average of 5 Gm. of such salt daily. Many adults do not use this amount, and certainly not all children will have an adequate iodine intake under such conditions. Some of the most commonly used brands of iodized table salt in the United States at present contain one part of iodine per 5,000 of salt. With this concentration, the use of only one Gm. of salt per day provides an intake of 200 micrograms, which is well above the margin of need for goiter prevention. It would be necessary to limit salt intake very drastically to keep the daily total as low as 1 Gm. daily. Consequently, it seems probable that salt with only one part of iodine per 10,000 parts of sodium chloride will be able to provide an abundance of iodine for prevention of goiter. It is suggested that since prevention of goiter is a health measure of importance to the entire population in many states of this country, and since iodized salt is not only convenient, safe, and economical but also effective and dependable, the control of iodine content of salt should become a function of state health authorities.—Elmer L. Sevringhaus, M.D. and James H. Barbour, Madison; The Wisc. M.J., Vol 41, No. 1, January, 1942.

A two and one-half pound bladder stone was removed suprapubically.—H. Fay H. Jones, Little Rock.

Concurrent Tuberculosis and Pernicious Anemia

JOHN H. SKAVLEM, M.D., and C. H. STOREY, M.D.

THE patient whose illness inspired this discussion of the subject of concurrent pernicious anemia and tuberculosis is a white woman, 41 years of age.

She first visited her doctor with the complaint that the alveoli had failed to heal after the extraction of several teeth. She also complained that over a period of one year she had suffered from progressive weakness, anorexia, and loss of weight amounting to 20 pounds. She complained too, of dyspnoea with exertion but gave no history of cough, sputum, hemoptysis, night sweats nor pleurisy. A biopsy of the offending alveoli revealed no distinctive pathology and her physician undertook an X-ray investigation of the gastro-intestinal tract. The gastro-intestinal series as well as gall bladder visualization X-rays revealed no evidence of disease, but an X-ray of the chest was read as showing bilateral apical tuberculosis of undetermined activity.

No significant clue to any other disease could be discovered from the past or family history. There was no history of exposure to tuberculosis. On closer questioning however, the patient admitted that over a period of six or eight months, she had been annoyed by progressively stubborn constipation and an occasional burning sensation along each side of the tongue. She had not experienced numbness and tingling of the hands and feet, vertigo nor blurred vision. Members of her family stated that for several months she had been inclined to be despondent and irritable. The patient could not recall any epigastric pain, vomiting, tarry blood stained nor clay colored stools. She had not been annoyed by palpitation, anginal pain, swelling of the ankles nor orthopnoeia. There were no symptoms relative to the uro-genital tract except recent mild menorrhagia.

The fact that her teeth had only recently become very carious and the gums spongy is, in retrospect, of considerable significance.

A blood study had been made before the patient reached the hospital; the hemoglobin was found to be 60 per cent of normal, the red count was 2,200,000; the white count was 4,250 with 72 per cent polymorphoneucleated leucocytes; a marked anisocytosis and poiklocytosis had been noted. A diagnosis of pernicious anemia apparently had been made previous to admission, for the patient had been receiving, by oral administration, a dried liver and stomach compound called Extralin.

DIAGNOSIS

The hematological studies made at this hospital supported a diagnosis of pernicious anemia. After intramuscular liver extract therapy had been instituted the red cell count rose from 2,200,000 to 3,770,000. The hemaglobin rose from 9.6 grams per 100 cc. to 11.5 grams. The serum bilirubin fell from 2.5 mg. per cent to 1 per cent. The reticulocyte count described a sharp rise beginning at 2.5 per cent, ascending to 4.1 per cent and gradually falling to 1.6 per cent over the two weeks patient was under liver therapy in the hospital. The white cell count which had been as low as 3,250 on one occasion rose to 6,050 at time of discharge, with many newer forms in evidence.

The marrow specimen obtained by sternum puncture was grossly hyperplastic. The differential count was as follows: myeloblasts 0; myelocytes B 6.1 per cent; myelocytes C 10.0 per cent; metamyelocytes 22.0 per cent; stabs 30.0 per cent; polys 24.0 per cent; eosinophiles 7.0 per cent; plasma cells 1.0 per cent. While counting 200 white cells, 221 nucleated red blood cells were seen, as follows: megaloblasts 1.0, early erythroblasts 40.0; late erytheroblasts 100; normoblasts 80.0. This count was compatible with pernicious anemia in which partial therapy (extralin) had been instituted.

The positive findings of the physical examination supported a diagnosis of pernicious anemia as well. The patient was of fair complexion; 41 years old, pale, nervous, weak and icteric. Her tongue was smooth and fissured along the sides, and tender. The unhealed alveoli were filled with a grayish slough. The granulations were pale. There was no palpable adenopathy.

The physical signs of tuberculosis were few. There was slight dullness in the right apical region where a few coarse rales could be heard, posteriorly.

The blood pressure was 100/60. A faint systolic murmur was heard at the apex, but this was not transmitted. The liver and spleen were not palpable. Neurological signs were limited to slightly diminished vibration sense over the tibia and ankles. The urine was negative. The gastric juice was without free hydrochloric acid even after the administration of histamine. Hinton and Kahn tests were negative. The sedimentation rate on admission was 15, at which time the serum was noted to be tinted with bile. The sedimentation rate was eight on discharge. The plasma bilirubin was 2.5 mgm. per cent on admission, 1 mgm. per cent on discharge. The patient ran an occasional fever of 99.6 degree on several occasions during the first part of her stay in the hospital.

As soon as the patient showed response to liver therapy our next effort was directed to determining whether her apical pulmonary lesions

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were active or not. Had we been more closely acquainted with the literature on the subject we should have been much less concerned about the activity of these lesions, for observers are unanimous in their opinion that the concurrence of active pulmonary tuberculosis and ideopathic pernicious anemia is extremely rare. As early as 1905 Gullard and Goodall averred that they had never seen pernicious anemia in conjunction with active tuberculosis, but noted that it has a much greater frequency in conjunction with healed tuberculosis. Salzmann noted the infrequent concurrence of the two diseases again in 1931. Strandell found only four cases of active tuberculosis among 117 carefully followed tuberculous patients. (One had a pulmonary lesion; one an intestinal lesion; one had tuberculous peritonitis; and one had miliary tuberculosis.) He also concluded that the association of the two diseases is very unusual. Our experience at the Hamilton County Tuberculosis Hospital supports this view. For the case of pernicious anemia just described has been the only one in the last 1800 admissions.

Barron of Minneapolis investigated 93 cases of pernicious anemia found in a series of 16,000 postmortem examinations. All of the 93 cases were strikingly free of active chronic tuberculosis; ten cases had adhesive pleuritis; there were three cases of arrested non-clinical pulmonary tuberculosis; and one case of healed miliary tuberculosis. He found only two active cases and these were of the miliary type. In one separate case history, Barron described a rapidly progressive pulmonary lesion in a patient with pernicious anemia of four years' duration. He noted that when the tuberculosis was most active the blood picture improved. The leucopenia gave way to a normal white cell count and finally to a leucocytosis of 26,000. Polys showed a shift to the left and metamyelocytes and myelocytes appeared. The color index remained high. Levin also described a case of pulmonary tuberculosis in a patient suffering from pernicious anemia, in which case the picture of pernicious anemia regressed. In another case Levin described the course of a patient who developed pernicious anemia while being treated for tuberculosis. In this case the tuberculous lesions regressed despite the severe cachexia of pernicious anemia. The infrequent concurrence of these two diseases is all the more notable since most debilitating conditions predispose to the reactivation of tuberculosis, a fact attested to by Rokitansky.

OLD TUBERCULOSIS LESIONS

The observations of Mathias concerning the reactivation of old tuberculous lesions in cachetic conditions are particularly pertinent. He noted that in Germany, before the First World War only six of every 100 fatal cases of tuberculosis were over 60 years of age. During the final stages of the war and just after it 13.5 per cent of every 100 fatal cases were over 60 years of age. On the basis of autopsy findings he considered this increase to be caused by the breaking down of old lesions during the famine. Although pernicious anemia leads to cachexia not unlike that of severe undernourishment, the infrequent occurrence of tuberculosis and pernicious anemia is noteworthy. Of 36 of his autopsied cases of advanced pernicious anemia none showed active tuberculosis. Morawitz and Seyforth, on the basis of 500 autoposied cases of pernicious anemia, uphold Mathias' view; Lazarus does likewise.

Quarnstrom of Helsingfors found five cases of active tuberculosis in 124 autopsied cases of pernicious anemia, but he did not distinguish between the pernicious anemia of dibothyrocephalus latus infestation and that of ideopathic pernicious anemia. Shaumann and Salzmann showed that active tuberculosis in tape worm anemias is fairly frequent and cited authorities who stated that in all their experience they have never seen a combination of active pulmonary tuberculosis and the ideopathic type of pernicious anemia.

INFREQUENT SIMULTANEOUS OCCURRENCE

From the slender volume of literature on the subject of concurrent pernicious anemia and tuberculosis, one may conclude safely that the two diseases are very seldom seen together in the same patient. And secondly, one might conclude less safely that there is an antagonism between tuberculosis and pernicious anemia.

The explanation for the infrequent simultaneous occurrence of these two diseases is varied. Shaumann thought it to be the result of increased red blood cell fragility. Mathias considered the decreased amount of hydrochloric acid occurring in pernicious anemia patients to act unfavorably against the acidophilic bacillus. Neuberger discards both of these theories by showing that tuberculosis in hemolytic icterus is by no means uncommon although this condition is characterized by increased red blood cell fragility and achylia gastrica as well. He presumes the existence of a constitutional factor predisposing to pernicious anemia but not to tuberculosis. Rokitansky states that the cyanosis of cardio-vascular and pulmonary disease does not favor the progression of tuberculous lesions. But it is difficult to explain why tuberculosis should not develop in pernicious anemia patients during the early stages of the disease when the oxygen carrying power of the blood is normal.

Quarnstrom attributed the infrequent simultaneous occurrence of the two diseases to the fact that the frequency of tuberculosis reaches its peak in the mid thirties, while pernicious anemia is most frequent in the middle years of life. He does not believe that any antagonistic factor exists. He cites two cases in which the diseases coexist.

Other observers find grounds to discredit his observations since he did not differentiate between ideopathic pernicious anemia and that caused by the fish tapeworm. They point out that his work was carried out in Finland where fish tapeworm infestation is very common. His conclusions on this subject are, therefore, not trustworthy. However, Wilkinson, writing in the Journal of the Minneapolis State Medical Association, inclines to concur with Quarnstrom for statistical reasons.

Naegeli was more interested in the regression of pernicious anemia when it occurs with tuberculosis. He presumed that the toxins of tuberculosis stimulate the marrow to normal function.

To recapitulate, the few writers on this subject all admit that tuberculosis and pernicious anemia are very seldom seen concurrently. Some of the observers believe that there is an antagonism between the two. Two authors hold a contrary view, one on grounds not wholly tenable.

In any event it became clear in seven weeks of observation that our patient was not suffering from active tuberculosis. The lesions seen by X-ray had not altered. The tubercle bacilli had never been found in her sputum nor in the gastric washings. The sedimentation rate, which was never rapid, changed only in a favorable direction. Other grounds for confusing the cause of the patient's symptoms were dispelled when her weight increased and her weakness and irritability disappeared as liver therapy progressed. Since discharge from the hospital, patient has felt well and follow-up examinations have shown no reason to alter our opinion.

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In every mental institution tuberculosis is a problem of first order. Of the deaths from tuberculosis in the United States, 5.2 per cent occur in mental hospitals while only 15.9 per cent are in tuberculosis hospitals.—M. Pollak, M.D., et al, Amer. Rev. of Tuber., Mar., 1941.

Dysmenorrhea And Allergy

The importance of allergy was first mentioned by Duke in his monograph on asthma and allergy. The first extensive series of cases, however, was reported by D. R. Smith. He found that the three symptoms complained of most frequently were dysmenorrhea, mucous vaginal discharge, and irregular menses. The foods most frequently giving positive reactions were: wheat, eggs, milk chocolate, fish, beef, pork, nuts, beans, peppers, cabbages and cauliflower. The treatment consists of elimination diets and in cases where definite allergy was present, the results were strikingly good. The allergic factor was proved in some cases by a return of the pain after discontinuing the diet. The importance of keeping the allergic factor in mind in searching for a cause of dysmenorrhea in a given case is emphasized in a later article by D. R. Smith and Otto Schwarz. In the twenty-six cases reported by them five had had abdominal operations and three had, in addition, dilatations without relief. The sensitivity of uterine muscle to the allergens has been known for years and the most satisfactory tissue for testing the relative potency of the various allergens is the uterine muscle of a guinea pig.—Robert J. Crossen, M.D., St. Louis; Rocky Mountain M.J., Vol. 39, No. 1; January, 1942.

Butter As a Source of Vitamin D

Vitamin D is also present in butter, and while it may vary in amount in different samples of butter, all butter is a fair source of this vitamin which is so essential to the bony structure. The natural source of vitamin D, of course, is sunlight, and thus it has been found that butter produced during the winter months from the milk of animals deprived of sunshine and pasture is lower in vitamin D content than is butter produced during the summer months when the animals are on pasture and in the sunlight.

Physicians recognize, of course, that fish liver oils are far superior to butter in supplying the antirachitic factor so important in preventing rickets and osteomalacia. However, butter furnishes an auxiliary supply of vitamin D, and artificial enrichment of it by ultraviolet rays makes it an even better source.—Chris L. Christensen, Madison; The Wisc. M.J., Vol. 41, No. 1, January, 1942.

At the Thirty-Eighth Annual Congress on Medical Education and Licensure, under the auspices of the Council on Medical Education and Hospitals of the American Medical Association, February 16-17 in the Palmer House, Chicago, the acceleration of the medical curriculum will be the major topic of discussion.

Gastro-Intestinal Allergy

A Case Report

LOUIS STERNBERG, M.D., NEW YORK

IT has been recognized for many years that some individuals react abnormally to certain foods. In the past these reactions were designated as idiosyncracies. Today we know that they are due to hypersensitivity to foods.

Almost any type of food may at times produce symptoms, but only a few are frequent offenders, in the following order, wheat, egg, milk, fish, chocolate, tomato and nuts.

Positive skin reactions in many of these cases are not always accompanied by specific circulating anti-bodies in the blood. Hence, in many instances proof of specific relationship is somewhat hampered by this fact. However, from a practical point of view, there is no question of an ideological relationship between these foods and the aforementioned train of symptoms, as the latter can be reproduced at will with each ingestion of the offending food. On the other hand we must always remember that a food may create definite clinical manifestations without giving positive skin reactions.

The most common symptoms of gastro-intestinal allergies are heartburn, nausea, flatulence, vomiting, pylorospasm, abdominal cramps and diarrhea.

Some observers such as Cooke[1] and Rackeman,[2] believe that symptoms of gastro-intestinal allergy are relatively rare in the adult. Rowe,[3] on the other hand, thinks that they are more common than usually appreciated. They are more frequent in children.

When such symptoms occur in a patient who has asthma, hay fever, or eczema, the possible existence of gastro-intestinal allergy is not difficult to surmise. However, when other allergic manifestations are absent, these gastro-intestinal complaints are seldom correlated with allergy, hence these patients are rarely seen by the allergist, and many of them go unrecognized for years.

CASE REPORT

B.S., male, 60 years old, was first seen in March, 1939, on account of hives associated with an attack of pain in the right upper quadrant of the abdomen. There was a family history of allergy. The attacks were intermittent over a period of six years. At times they were so severe that injections of pantopon had to be given in order to give him relief. During this period he also complained of heartburn and nausea usually in the morning about one hour after breakfast. On further questioning he claimed that raw milk gave him diarrhea on certain occasions, and that he disliked certain foods such as lamb, beans and tomatoes. During the past five years he had his gallbladder and stomach X-rayed on various occasions, and was told that there was a suspicion of an inflamed gallbladder. Two years ago he was under observation in a hospital and after a stay of two weeks was informed that he might have an ulcer of his stomach. X-ray findings, however, were always negative. Diets given for ulcer and gallbladder failed to give him any relief whatsoever.

The Author

● Dr. Sternberg, New York City, is a graduate of New York University, Medical College, 1912; member of Society for the Study of Asthma and Allied Conditions.

Physical examination was negative.

Skin tests: There was a marked reaction to both cow and goat milk and to their respective wheys. Only slight reactions to casein and lamb were noted. All other foods were negative. The Prausnitz-Kunster test was negative.

He was instructed to eliminate raw milk from his diet, and use only powdered or evaporated milk with his coffee. This change improved his condition a good deal, but not completely. The complete elimination of milk and all milk products from his diet was then suggested. He followed this advice, and has been symptom free now for over two years. On two occasions during this period, he drank raw milk with his coffee, and both times the usual cramps in his abdomen, nausea, and heartburn returned. His family physician, realizing now the allergic nature of these attacks, relieved the cramps with epinephrine instead of the pantopon.

The interesting features that this patient presents are four-fold. (1) Gastro-intestinal allergy usually begins in childhood. In this case, these symptoms first manifested themselves at the age of 54. (2) This patient suffered for more than six years, during which time he also was under observation in an institution, and a diagnosis of allergy was never thought of until he developed the attack of urticaria. (3) He typifies the "immediate" type of allergic reaction[4] in which the clinical symptoms develop within an hour, and in which the skin test is positive. (4) Sensitivity to foods is often multiple. Here a single food (milk), was the sole offender, and a perfect result was therefore easily accomplished by eliminating milk and its products.

17 Park Avenue.

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From the Department of Allergy, The Roosevelt Hospital, New York.

Presented before the Association of Allergy Clinics of Greater New York, March 14, 1940.

Poison Ivy Dermatitis

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THE cutaneous irritation may come from actual local contact with plant substance or rarely, from parenteral use of the extract of the plant. According to the sensitivity of the skin the cutaneous reaction may vary from a few small blisters with pruritus to large blisters with edema and even hemorrhages. In the more severe forms constitutional reactions such as nausea, vomiting, headaches, and low grade fever may be found. Moreover, as with any irritation of the skin, secondary infection may result from scratching.

The best treatment is prevention. First, of course, is the avoidance of contact with the plant. Someone who knows the plant should show it to these susceptible individuals. That is much better than reading about it or looking at pictures. When such instruction is not available, then one should remember the old couplet: "Leaves three, leave it be." If the poison ivy plant is found in their immediate environment an effort should be made to remove this. Removal should be done by someone who is not susceptible. If this is not possible, the individual should be protected with gloves, long sleeves, etc. Great care should be taken also when these contaminated articles are removed. Plants may be destroyed by tracing the root and pulling it up, or by the use of strong chemicals on the ground around the vegetation. Instructions on the removal of the plant may be obtained from any agricultural experimental station.

Contact with the skin may be indirect, such as handling shoes, trousers, gloves, coats, etc., which have brushed against the plant or from touching animals which have brushed against the plant. In addition there may be cutaneous contact with the smoke particles when the leaves are burned. The value of protective creams has not been proved as yet and too much reliance should not be placed in these. If an individual who is susceptible or who believes himself to be susceptible, touches the plant and if the area of contact is known, this area should be sponged off very carefully, not rubbed, with a strong soap solution, rinsed with clear water and then patted dry. If the actual area of contact is not known, a bath should be taken with any type of soap and the whole skin rubbed vigorously. In very susceptible individuals unless these prophylactic measures are taken very quickly after contact it may not be possible to prevent poison ivy dermatitis.

Work is still being done at the present time on the value of antigens made from the poison ivy plant to prevent the appearance of poison ivy dermatitis. In spite of the number of years which these have been used, and in spite of the frequency of their use, it is not absolutely certain as yet just how effective these are. However, it is recommended that for susceptible individuals some prophylactic materials be given in the spring of each year. This prophylactic material may be used either in the form of injections of a good antigen, at intervals of five to seven days or may be given in the form of good preparations by mouth either in the form of capsules or drops over a period of two to two and one-half months. These materials must be repeated next year. Because of the uncertainty of the value of these prophylactic materials, they should not be used in routine uncontrolled studies.

The average duration of uncomplicated poison ivy is approximately ten to fourteen days. Such clinical facts as the appearance of blisters coming on very rapidly after contact, rapidly spreading, rapidly increasing in size, indicate that the individual has acquired a severe type of poison ivy dermatitis.

The average duration of uncomplicated poison ivy is approximately 10 to 14 days. Such clinical facts as the rapid appearance of blisters after contact, the rapid spread, the rapid increase in size, indicate that the individual has acquired a severe type of poison ivy dermatitis.

When the poison ivy dermatitis has made its appearance, usually at the first point of contact, occasionally the use of the following materials may dry them up quickly. Regardless what agents are used, the areas should be bandaged and if there is a dry coating on the top of the lesion the application will not have to be repeated. Frequently, this form of crusting material, applied to the primary group of blisters, may prevent the dermatitis from spreading. These materials include the following:

Rx Talc
    Zinx oxide
    Glycerin
    Water aa 15.0

Rx Potassium permangate (1-100) 15.0

Rx Tannic acid solution 5% followed by an
    application of 10% Silver nitrate

If the dermatitis spreads, and large sized blisters or bullae are produced and there is considerable oozing and edema these crusting materials must not be used. Then, wet dressings of aluminum subacetate or aluminum acetate

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Dr. Goldman was selected to write an editorial summary on the above topic by a committee of leading Ohio Dermatologists.

may be employed. When the dressings are used constantly, they must be diluted, two teaspoonfuls to one-half glass of warm water. When the body is covered with numerous small vesicles with little edema or secondary infection, then it is much more comfortable for the patient to use either a paste or a lotion. The following suggestions are for the paste:

Rx Talc
Zinc oxide
Glycerine
Water aa 15.0

Rx Calamine 3.0
Talc 15.0
Zinc oxide 10.0
Glycerin 15.0
Kaolin 8.0
Aqua 30.0

Rx Liq. carbonis detergens 10.0
Menthol 0.13
Alcohol 30.0
Calamine lotion 180.0

Rx Liq. carbonis detergens 10.0
Talc 15.0
Zinc oxide 10.0
Glycerin 15.0
Kaolin 8.0
Calamine 3.0
Aqua 30.0

These medicines should be applied at least three or four times a day and more often if necessary for relief of discomfort. For those mixtures to which tar has been added the skin should be watched for irritation. Bathing must not be done since it tends to spread the lesions and also will not reduce the tendency to secondary infection. When the lesions begin to dry and there is no more oozing on the skin, then the lotions and paste should be discontinued and any bland cream may be employed.

Frequently as a result of intense itching secondary pyogenic infection may occur. This pyogenic infection may be treated with antiseptic wet dressings to the local area. If the infection is widespread or if the poison ivy is severe, hospitalization is recommended. Impetigo is a common complication in children and may become extensive, because of the large numbers of skin lesions available for secondary infection. It was this combination which I found associated with several cases of rare impetigo nephritis.

At present, poison ivy antigen is not recommended as a therapeutic procedure since there is no real proof that it does shorten the duration of the disease and under certain circumstances, the antigen may actually aggravate the disease. In an effort to secure relief from the severe itching, intramuscular calcium, autohemotherapy, etc., may be used. Histaminase orally has not been of any definite value. Histaminase by injection is just being used at present and results are not known as yet.

The rare mucous membrane lesions scarcely require any treatment. If there is edema of the tongue or postpharynx the patient should be hospitalized. Gastro-intestinal disturbances following ingestion of the material usually require no treatment since these reactions are mild save in very sensitive individuals.

As far as can be determined, an attack of poison ivy does not make the individual hypersensitive to poison ivy nor does it make him hypersensitive to other materials. A susceptible individual may have several attacks of poison ivy during the season.

733 Carew Tower.

Gastro-Intestinal Diagnosis

It often happens that patients, referred for roentgenological consultation with a tentative provisional diagnosis of "gastric neoplasm," for example, are found to present unequivocal X-ray signs of obstructing duodenal ulcer, neoplasm of the large intestine, cholelithiasis or perhaps no organic disease whatever. Because of this, examination is best conducted without consideration for the presumptive diagnosis. Carcinoma of the colon is notoriously unorthodox in the matter of symptom production and gastric carcinoma is all too frequently a "silent" lesion until it has produced very extensive involvement. Only when patients are sent for examination upon the first suggestion of gastro-intestinal derangement can early lesions of this sort be brought to light. To derive for their patients the greatest good from this sort of study medical practitioners should find for themselves a conscientious, diligent, and well-trained roentgenologist worthy of their confidence and should then entrust to his hands the examination of all patients whose story of illness suggests in any degree the presence of recognizable disease. On the other hand, persons should be avoided who place the good name of roentgenology in jeopardy by offering inadequate, slipshod, technically poor and diagnostically inaccurate service.—Fred Jenner Hodges, M.D., Ann Arbor, Mich.; Rocky Mountain M.J., Vol. 39, No. 1, January, 1942.

Treatment of Burns

A new solution that is the first convenient and economical source of the sulfhydryl ion has been successfully employed in the treatment of 150 cases of burns. About two-thirds of these were of a severity sufficient to make their hospitalization a necessity. There has been no clinical evidence of infection in any of the cases studied, nor has there been any evidence of toxicity. This solution appears to fulfill the several requisites of a successful local treatment of burns more completely than any other single treatment with which we have been familiar.—Ralph R. Mellon, M.D., Pittsburgh; Industrial Medicine, Jan., 1942.

Periarteritis Nodosa With Peripheral Polyneuritis and Hyperglycemia

A Case Record Presenting Clinical Problems

ROBERT R. WILLIAMS, M.D., and PEARL ZEEK, M.D.*

CASE 160304. **History:** A forty-two year old, male, truck driver was admitted to the Cincinnati General Hospital on June 14, 1941, complaining of abdominal pain and of numbness, tingling and pain in the legs. The patient was in good health until one month before admission when he noticed the gradual onset of fever, weakness and loss of weight. The fever continued and he experienced intermittent chilly sensations for two weeks. There were no frank chills until ten days before admission, at which time he had shaking chills on each of three successive mornings. With the onset of fever generalized muscle aches, most marked in the calves and forearms were noted. Arthralgia occurred in the wrists and shoulders. During the two weeks' period before admission his legs felt numb, his gait became ataxic and marked weakness developed in both lower legs. Finally he noted numbness and weakness of the hands with loss of the fine skilled movements of the fingers. Also, during this period, non-radiating paraumbilical pain was experienced. The pain was cramp-like at times, but for the most part was characterized by soreness which remained constant over long periods of time. It was accompanied by vomiting which occurred shortly after meals. The vomitus consisted of material ingested at the previous meal. There was very little nausea. The pain was unrelated to the type of food ingested, to vomiting, to bowel movements or to changes in position. It was accompanied by gaseous eructations but not abdominal distention. The patient had been able to retain little food during this two weeks' period, but the diet had been adequate previously. There was no diarrhea, icterus, melena or acholic stools prior to admission. During the course of the illness the patient experienced several night sweats but there was no history of pain or other pulmonary symptoms. He sought medical attention at the onset of his illness and was given codeine, aspirin and pyramidon. Later he received some unknown medication, possibly one of the sulfonamides. During the course of his illness seven teeth were extracted. No relief or improvement resulted from any of these measures.

The past history revealed that the patient had had gonorrheal urethritis without sequelae many years ago. He denied having had a chancre or secondary eruptions or syphilis. No previous serological records were available. There was no history of allergic manifestations.

Physical examination: Temperature 102°. Pulse 120. Respiration 28. Blood pressure 145/100. The patient was a poorly nourished, acutely ill, white male who cried out with pain whenever his position was changed. He was not dyspnoeic, cyanotic, edematous or icteric. The skeletal system was not remarkable. There was one moderately enlarged epitrochlear node on the right but no other adenopathy. The pupils reacted to light and accommodation. The fundi were not remarkable. The mouth showed no abnormal pigmentation. The tongue was coated and its tip and margins reddened without atrophy. The pharynx was diffusely reddened. The teeth were carious, but the recent extraction sites were well healed. The expansion of the thorax was equal and adequate. The lung fields were clear to percussion and auscultation. The heart was not enlarged to percussion. There was a persistent tachycardia ranging from 100 to 130 beats per minute. No murmurs, gallop rhythm, extrasystoles, thrills or rubs were found. The peripheral pulses were not remarkable. The peripheral vessels showed moderate thickening, but no nodules, tenderness or tortuosity. The abdomen was distended and tense. There was moderate paraumbilical tenderness, but no spasm. There was no fluid wave or flank dullness but considerable tympany was present over the entire abdomen. Peristalsis was increased. The liver edge was percussed one finger's breadth below the costal margin but was not felt. The spleen and kidneys were not palpable. There was moderate phimosis of the penis, but no urethral discharge. Both testes were exquisitely tender; however, no fluctuant areas, masses or enlargements were found. Rectal examination showed the prostate to be moderately enlarged, soft and tender. The extremities were not remarkable. Neurological examination revealed no findings suggesting abnormality of the cranial nerves. There was definite weakness of grip in both hands. The motor strength in the feet was fairly good. Sensory examination showed hypaesthesia and hyperalgesia up to the junction of the lower and middle thirds of the calves. Position perception was absent in the toes. Vibration perception was present in the lower legs. There was marked tenderness of the muscles of the right calf. Tendon reflexes were present in both arms, although the triceps and biceps were diminished on the left. The patellar tendon reflexes were active and equal, but the achilles tendon reflexes were absent. The Babinski and its confirmatory reflexes were negative, as was the Hoffman sign.

Laboratory data: Initial examination of capillary blood showed: hemoglobin 12.8 grams; red blood cells 4,440,000; white blood cells 37,800, 94 per cent polymorphonuclear leucocytes. The urine contained one plus albumin, and the tests for sugar and acetone were negative. Microscopic examination revealed an occasional leucocyte. On the twelfth hospital day the urine contained four plus sugar and no acetone. Glycosuria continued until death on the twenty-third hospital day. The stools were not remarkable.

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*The authors represent respectively the Medical and Pathological Services of Cincinnati General Hospital.

This is the sixth of a series of "Case Records Presenting Clinical Problems," selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

Kahn and Wassermann reactions of the blood were three plus with all antigens. Lumbar puncture revealed normal dynamics, no cells, protein 31 mg. per cent, chlorides 661 mg. per cent, Wassermann two plus, gold curve 112-2000000. The blood urea nitrogen ranged from 28 to 15 mg. per cent. The CO_2 combining power fell from 48 volumes per cent to 37 volumes per cent. Blood sugar ranged from 163 to 250 mg. per cent. A glucose tolerance test showed a fasting value of 243, at one half hour 363, at one and one half hours 400, at two and one half hours 400, and at three and one half hours 444 mg. per cent. The serum protein was 4.6 grams per cent, the albumin being 1.2 and the globulin 3.4 grams per cent. Urine cultures grew hemolytic streptococcus, staphylococcus aureus and streptococcus viridans. Blood cultures were negative on three occasions. The electrocardiogram revealed low voltage T waves and left axis deviation. A six foot chest plate showed slight cardiac enlargement. Repeated flat plates of the abdomen showed enlargement of the liver but no evidence of obstruction or ileus except on the first plate where one dilated loop of small intestine was found. Scrapings from a mucous patch on the uvula revealed no treponema pallida on dark field examination. A biopsy of the left gastrocnemius muscle revealed essentially normal tissue. The sections contained no small arteries of the size usually involved in periarteritis nodosa. A skin biopsy revealed findings characteristic of periarteritis nodosa.

Course in the Hospital: Throughout the hospital stay the patient maintained a fever which ranged from 99° to 102° daily, but occasionally reached 104°. There was a constant tachycardia of 100 to 130 per minute. The blood pressure varied from 130/100 to 160/100 mm. Hg. Respirations were rapid and shallow, with a rate of 28 to 40 per minute. Because of the testicular and prostatic tenderness he was seen by a genito-urinary consultant who felt that abnormalities in these organs were insufficient to explain his febrile course. The abdominal pain subsided almost entirely a few days after admission. The polymorphonuclear leucocytosis persisted. The manifestations of the peripheral neuritis progressed rapidly. Interosseous atrophy and bilateral foot drop were first noted on the fifth day. Wrist drop appeared on the eighth day.

On admission, a total of 18 grams of sulfathiazole was administered over a period of three days, during which time the temperature fell to 100.4°. The drug was discontinued and the temperature rose again to 102°. On the ninth day the patient became confused and delirious. On the tenth day a maculopapular eruption, segmental in distribution, appeared over the lower ribs on the right. At first this appeared to be a simple erythema but later papules and then vesicles appeared. Some itching preceded and accompanied the eruption. At this time the muscle biopsy mentioned above was taken and reported as being within normal limits. Another biopsy was taken from the skin lesions. This revealed periarteritis nodosa of the vessels of the subcutaneous tissues. On the twelfth hospital day the patient developed glycosuria for the first time, although an elevated blood sugar had been discovered on admission. In spite of a three to four plus reduction of Benedict's solution daily over a period of several days, the patient failed to show acetonuria. However, the CO_2 combining power of the blood fell from 48 to 37 volumes per cent.

Another trial on sulfathiazole was begun on the fourteenth day and continued for five days, but was discontinued when the temperature and white blood cell counts remained elevated. Because of the positive serology, antileutic therapy was instituted, a total of 60 mgm. mapharsen and 500 mgm. bismuth being administered before death. Nicotinic acid 400 mgm. daily and thiamin chloride 50 mgm. daily were given orally, throughout the illness. The course of the peripheral neuritis and tongue lesions was not influenced. The patient continued to weaken, was frequently nauseated and complained of abdominal discomfort during the last week of his illness. During a large part of this time he was disoriented and confused. Jaundice appeared on the eighteenth hospital day. On the day of death he vomited a large amount of coffee ground material and complained of severe generalized abdominal cramps. The abdomen became rigid and diffusely tender. Peristalsis was absent. In spite of supportive treatment, signs of shock rapidly appeared, the blood pressure fell to 80/60 mm. Hg. and the patient died. Terminally, the temperature reached 107.2°F.

Clinical Impressions: Periarteritis nodosa; generalized peritonitis due to acute hemorrhagic pancreatitis or to the rupture of a hollow viscus; peripheral polyneuritis; hypertension; glycosuria.

Necropsy (N-41-309): Performed 24 hours after death by Dr. W. M. Cannon.

Gross Examination: On opening the abdominal cavity, the peritoneal surfaces were slightly injected, lightly adherent, and covered by a thin layer of greenish gray exudate. There were 250 cc. of thin, turbid, yellow fluid present. A culture of this fluid was reported to contain "green streptococci and bacillus coli". The pancreas contained two large abscesses. One, situated in the head of the pancreas, measured 4x3x2 cm. The other, in the body of that organ, measured 12x8x3 cm. and involved a 5 cm. area of the peritoneal surface of the transverse mesocolon. The peri-pancreatic fatty tissues were indurated and mottled with chalky white areas of fat necrosis. The gallbladder presented an irregularly thickened, slightly congested wall. It contained thick, turbid, yellow fluid in which was floating a soft brownish black mass of tissue measuring 2x1x0.5 cm. Bile could be expressed through the papilla of Vater, although a small mass similar to that in the gallbladder, was found in the ampulla. There were three deep-seated ulcers in the distal two-thirds of the lesser curvature of the stomach. These varied from 1 to 3.5 cm. in diameter and extended into the muscular layer. The kidneys weighed 190 and 125 grams, right and left respectively. They presented several subcapsular scars and prominet. thick-walled blood vessels. The spleen and liver showed only congestion and edema. There was marked congestion of the epididymides. There were pale yellow, indurated areas up to one centimeter in diameter scattered irregularly through the soft brown testicular tissues. The prostate, seminal vesicles, suprarenals, and enteric tract appeared normal. The heart weighed 370 grams which indicated slight hypertrophy in an emaciated, adult male, 160 cm. in length. The lungs, weighing 780 and 650 grams, right and left respectively, presented generalized edema. There were irregularly distributed areas of induration in the lower lobes and a Ghon tubercle in the right middle lobe.

The hilic lymph nodes were fibrotic and calcified. Examinations of nervous tissue were made by Dr. I. Mark Scheinker. Microscopic examination of the brain revealed thickening and opalescence of the meninges, widening and protrusion of the cerebral convolutions with flattening of the gyri and indistinct demarcation between cortex and underlying white matter.

Microscopic examination revealed typical periarteritis nodosa in the heart, pancreas, gallbladder, suprarenals, kidneys, testes, epididymides, stomach, colon and peripheral nerves. All stages of the process were represented, acute, subacute and chronic lesions often occurring in different vessels of the same organ. The lesions occurred usually in small and medium sized arteries although a few arterioles were also involved. In the acute stage, a portion, or all of the vessel wall was necrotic and infiltrated with inflammatory cells, neutrocytes predominating. Eosinophiles were not prominent, although a few were found in the necrotizing lesions. In somewhat older lesions fibroblasts were proliferating and there were wide zones of inflammatory reaction around the vessels, producing a markedly nodular appearance. Many of the involved vessels were thrombosed. The more chronic phases of the lesion were represented by partial or complete obliteration of the lumen by fibrous tissue, sometimes with attempts at canalization. No typically syphilitic lesions were found. The vascular lesions were associated with extensive chronic and acute necrotizing parenchymal lesions, and fibrosis, in the pancreas, gallbladder, suprarenals and testes. There were miliary areas of necrosis in the heart muscle. Old and recent infarcts were seen in the kidneys. The gastric ulcers were acute and presented periarteritis nodosa in their walls. Similar, but less extensive lesions were found in the colon. The organ presenting the most extensive parenchymal necrosis was the pancreas, where the necrotizing lesions extended to and involved the peritoneum. The wall of the gallbladder was very edematous and infiltrated with inflammatory cells. The mucosa was necrotic. The tissue masses found in the gallbladder cavity and in the ampulla of Vater consisted of sloughed gallbladder mucosa. No periarteritis nodosa was found in the lungs, liver or spleen, although no hilic sections (containing arteries of the size usually involved) were taken from the last two organs. There was acute bronchitis and lobular pneumonia in sections from the lower lobes of both lungs. Typical vascular changes of periarteritis nodosa were found in and around the peripheral nerve tissue. All stages of the process were represented. The nerve tissue revealed fragmentation and destruction of myelin sheaths, swelling and breaking up of the axones, and hypertrophic thickening of the peri- and endoneurium. No inflammatory cells were found in the nerve tissue itself. Microscopic examination of brain tissue was limited to several sections which showed no pathological change.

The principal pathologic diagnoses were: Acute, subacute and chronic periarteritis nodosa producing necrotizing inflammation and fibrosis in numerous viscera; lobular pneumonia.

DISCUSSION

Clinical evidence for the acute involvement of an abdominal viscus was present in 168 of the 378 cases of periarteritis nodosa cited by Boyd[1]. In this case the diffuse pancreatic involvement accounted for the glycosuria, hyperglycemia, and terminal peritonitis. Either the pancreatitis or the gastric ulcers furnish ample cause for the abdominal pain and vomiting. Lesions also were found which accounted for the testicular tenderness and the polyneuritis. The partial plugging of the ampulla of Vater may have caused the jaundice. The widespread involvement of the blood vessels, both in the kidneys and elsewhere, was probably the basis for the hypertension and myocardial hypertrophy.

The positive Wassermann reaction was also of some interest, especially in view of the fact that the patient showed no clinical or pathological evidence of syphilis and no history of syphilis was obtainable. In Boyd's review of 378 cases, a Wassermann reaction was reported in 188. The reaction was positive in 18, doubtful in four, and negative in 166 of these.

The correct diagnosis in this case was made clinically on the basis of a generalized systemic febrile disease with manifestation referable to multiple viscera, hypertension, and progressive peripheral polyneuritis. The muscles taken for biopsy did not contain small arteries of the type usually involved in periarteritis nodosa and was therefore of no value in diagnosis. The skin biopsy, however, contained a small artery and confirmed the clinical impression. It is of interest that this positive biopsy was obtained from the area of the papulo-vesicular dermatitis over the abdomen.

Accident Toll in the Home

"In one year home accidents have killed 33,000 persons, caused 4,850,000 disabling accidents—of which 140,000 resulted in permanent disability—and cost many millions of dollars," R. L. Lee, Long Beach, Calif., declares in *Hygeia, The Health Magazine* for February. "In five years these accidental deaths have totaled 167,000, with injuries and property losses mounting accordingly. In our ardor for national defense against foreign foes, this grisly home accident toll should not be overlooked or given only sporadic attention. . . .

"An analysis of home accidents shows that they are often easily prevented by a little intelligent care. . . ."

Children, the author explains, are frequently the victims of home accidents. They set fire to their clothing by playing with matches when they are accessible, by turning up gas burners and by pulling over lamps. They should not be, but sometimes are, allowed to play in front of unscreened fireplaces. . . . In the case of adults, Mr. Lee points out, "falls have been found to account for more deaths and injuries than any other type of home accident. Yet they could be largely eliminated if people would form better habits and stop taking foolish chances.

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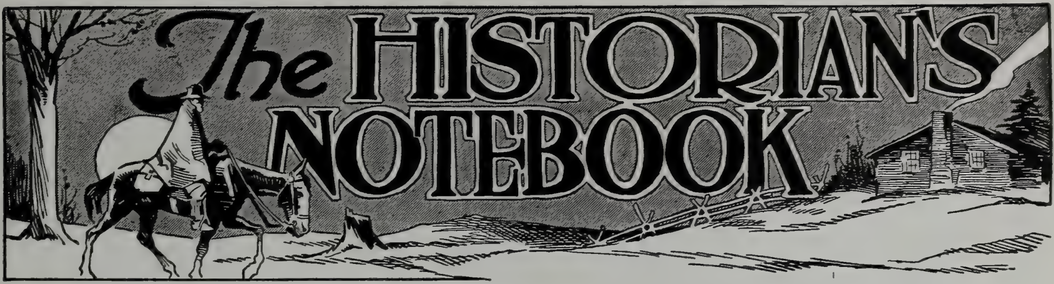
[1] Boyd, Linn J., Bulletin of New York Medical College, Flower and Fifth Avenue Hospitals, 4:27, 1941.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A Doctor of the Old School

GEORGE C. JAMESON, A.M., M.D.

THE subject of this sketch is Dr. Norton S. Townshend who began the practice of medicine in Lorain County in 1841—exactly 100 years ago. He was born in Northhamptonshire, England, on Christmas Day, 1815. His parents were well-to-do farmers. They were educated people, his father a graduate of Oxford, and they believed in Education. It is recorded that when their son was "four and three-quarters years old", he was sent to a boarding school where he spent the next ten years with one visit a year, to his home. This ended his formal schooling until he studied medicine, but his father taught him Latin and history at home. When he was 15, he came with his parents to America, where they bought a large farm on the North Ridge in Avon. Here he spent the next six years as a farmer's son and in that time he formed what proved to be a lifelong affection for farm life.

He was offered a college education, but it was refused because he said a farmer would not need it. This he afterward said was the greatest mistake of his life and one which he bitterly regretted; for he became convinced that no one needed education more than a farmer, and he did all in his power to put college training within reach of farmers' sons. His father had a small but well selected library and this the young man used to good advantage. When he was 21 he taught a district school; he was also keenly interested in public affairs and became an earnest anti-slavery advocate.

What led to his ambition to be a doctor does not appear, but it proved to be no passing impulse. When he was 22 he began the study of medicine under the preceptorship of Dr. R. S. Howard of Elyria; at the same time he studied Greek, Latin and French under another tutor; and following this he attended lectures at a medical college in Cincinnati. He continued his study in New York, and in 1840 he received the degree of Doctor of Medicine from the College of Physicians and Surgeons. While studying in New York he spent his spare time as a voluntary assistant in a chemical laboratory.

The Author

● Dr. Jameseon, Oberlin, Ohio, is a graduate of Medical School, University of Pennsylvania, 1893; president of medical staff of Allen Hospital, Oberlin.

In June, 1840, following his graduation, he went to London for further study, at the same time representing the anti-slavery Society of Ohio at a world anti-slavery convention. He then carried out a plan to visit and study in other European hospitals, including those in Dublin, Edinburgh and Paris, and in 1841 he received a diploma from the Ecole de Medicine, University of France.

Coming back to America better equipped than a vast majority of the physicians of his time, instead of seeking fame and fortune in a metropolitan community, he came at once to his home in Avon, opened an office and began practice among his old farm neighbors. It should be remembered that this was in what might be called the heroic age of rural practice, when there were no improved roads, no specialists and few consultants to share responsibility, and the country doctor had to be "all things to all men."

Giving to his patients the full benefit of the knowledge and skill which he had gained by scientific training and hospital experience, he added a keen appreciation of their living conditions and their farm problems. It was said that at first some of them were a little suspicious of a man who was able and willing to help them to doctor

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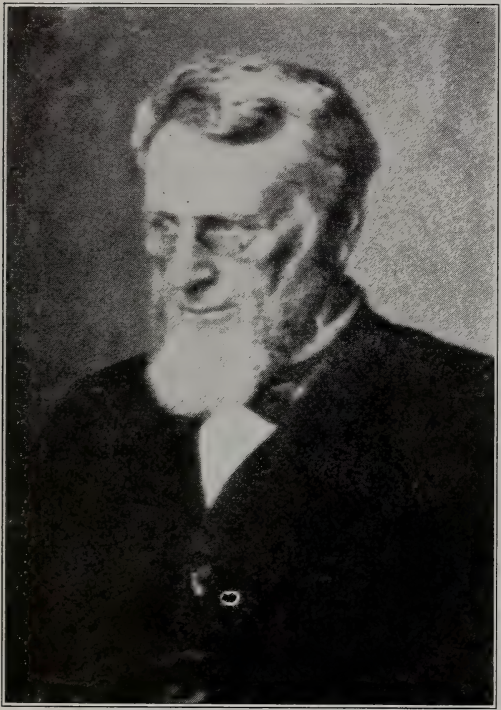
Read before the Lorain County Medical Society, December 9, 1941.

a sick cow! This distrust was soon allayed, however, when they saw with what skill and understanding he looked after their own and their children's physical needs.

On one occasion, years afterwards, a boy of four was brought to him with such severe dyspnoea that he was unable to lie down at night and neither the boy nor his parents were getting much sleep. Dr. Townshend took the lad on his knee, put his ear to the patient's chest and after listening a moment said "This boy has asthma, but I think we can relieve him. Have one of the other boys take a horse and ride down the King road about two miles toward the lake, and he will see growing in the fence corners some tall, weedy plants with large white blossoms. Have him gather several of them and bring them home; then you put them in the oven and dry them thoroughly; crush some of the leaves, put them in a clean clay pipe and let him smoke them." These directions were followed and the paroxysms were relieved like magic. Of course, the plant was Datura Stramonium. The notable thing was that this country doctor was ready and accurate in his diagnosis; that he knew the proper treatment; that he was a botanist and recognized the plant when he saw it, and that in his rides about the country he kept his eyes open and his mind alert to see and remember useful facts. The gratitude of these parents and of the boy himself, was genuine and the incident was not soon forgotten. In fact, the patient still remembers it vividly, for the writer of this sketch was that boy.



NORTON S. TOWNSHEND, M.D.

This is the picture we have of this man in the middle years of the 19th century: A young man in his early thirties with a clean and vigorous physique developed by a boyhood of strenuous but happy farm life; mentally alert and scientifically trained; in love with his professional work, and with a broad conception of a doctor's duty to his community; in close sympathy with his farm neighbors, ready and anxious to give them as good medical care as could be found anywhere; comprehending from his own experience their economic and social problems, as well as their physical needs, ambitious to reform existing evils and to improve living conditions; with a broad-minded civic consciousness which made him ready to cope with public affairs, and to become a leader in his community.

His practice spread to other parts of the county, but he continued to give his country patients the full benefit of his skill and his unusual scientific training. At the same time his grasp of civic and public problems carried his reputation beyond the limits of his medical practice.

In 1845 he was elected trustee of Oberlin College, a position which he held for 12 years, and where his sound judgment and enthusiasm contributed materially to the development and usefulness of this educational institution. He continued to be an anti-slavery advocate and on this issue, in 1848, he was eelcted to the State Legislature as the representative of this district. Here his ability was recognized and he became one of the influential members of the General Assembly. In 1850 he was a member of the Constitutional Convention of Ohio, and in the same year he was elected representative in the United States Congress. Later he was elected a member of the State Senate in Columbus. In this capacity he advocated the establishment of a state institution for the care and training of feeble-minded children, a measure which was put into effect at the next session. He was made one of three trustees who were commissioned to carry this plan into effect, and for 21 years he continued to serve in this capacity.

While an Oberlin trustee, he sought to develop an idea which had come to him in his life in Avon, among the farmers who had been his neighbors and patients—the improvement of their farm methods and living conditions by scientific education in agriculture. At that time there were no agricultural schools in America. In 1854, with the co-operation of Prof. James H. Fairchild and Dr. James Dascomb of Oberlin, and Dr. John S. Newberry of Cleveland, Dr. Townshend organized courses in agricultural science which were given for two years in Oberlin and one year in Cleveland. It should be a matter of pride to us that this, which has become one of the most beneficial and important departments of education in this country, was inaugurated here in Lorain County, and its originator and chief sponsor was a member of our profession. It was characteristic of Dr. Townshend that having put his hand to the plow, he did not turn back. As long as he lived, the advancement of the education and welfare of the farmers of America was a vital part of his life work. The great agricultural department of Ohio State University is the direct outgrowth of the work which he initiated and developed, and in which as a member of the State board of agriculture he enlisted the active support of the government. He was also a prime mover in the establishment of State agricultural experiment stations.

Nor was his work and influence confined to Ohio. He served for one year as the first professor of agriculture in the Iowa State College, and he was in demand as a lecturer at farmers' institutes in other states. He was recognized as "the father of agricultural education in America." Many years later a professor, in the University of Illinois, said in a public address, ". . . The same honored professor, Dr. Townshend was associated with the very first attempt of this kind made in the United States, in Oberlin in 1854."

Great as was his work of this kind, it did not absorb all his energy. He never withdrew from public affairs or shirked his duty as a citizen. In 1863 he received from President Lincoln, the appointment as Medical Inspector of the United States Army, with the rank of Lieutenant Colonel, a commission which he held to the end of the war. In 1867 his knowledge of chemistry was recognized by the government and he was appointed to a commission to visit the United States mint at Philadelphia to determine the standard purity of government coinage.

This is only an incomplete and very imperfect list of Dr. Townshend's public services. A professor of history, in one of our colleges, has remarked that "A really inclusive review of events in which he had a part would take a lot of research."

With all the public and educational calls which were made upon him, it was inevitable that he should find it necessary to discontinue his medical practice; but in the intervals in his public work when he returned to his home on the farm, neither he nor his old neighbors forgot that he was a doctor and when they needed him, he responded cheerfully to their calls. I remember seeing him long after he had become a national figure, attending a case of severe illness in my own home.

At this time, as I remember him, he was an easily approachable middle-aged man, of medium height, with iron-gray hair and beard, dignified, but kindly, benevolent features, and pleasant voice. One Sunday morning as we were driving along the ridge road toward French Creek, to attend church, Dr. Townshend and his family came out of their yard and drove just ahead of us; and I distinctly remember how we remarked that the side of the buggy on which he sat was lower than the opposite side, for the doctor was a man of weight, in more ways than one.

In the midst of his public duties and honors, he never lost touch with his farm neighbors and his old friends. A vivid picture comes to mind of a day when driving near his home, he came upon a group of farmers who were working out their road tax, and how they gathered about his buggy to talk with him, listening to him with the greatest respect, for though they recognized him as a great man, he was never supercilious and never made them feel inferior. He enjoyed their complete confidence and respect. There is evidence, too, that he was not without a kindly sense of humor. On one of his visits one of our loquacious, doting mothers besieged him to make a place for her son in the university; and she was somewhat extravagant in extolling the young man's virtues and ability which she attributed to the fact that he was altogether like her and her side of the family. The doctor, who was well acquainted with the family antecedents, quietly remarked, "I should think better of it if he were more like his father"! But he arranged for the boy to enter the university, and helped him in every way possible.

In 1873 he was made Professor of Agriculture at the State University, a responsibility which necessitated his living in Columbus and his neighbors in Avon saw him only when he made brief visits to his old home. These were occasions which we all appreciated, for though we saw him seldom, his attitude encouraged us to feel that he was still our fellow-townsman, and that he had a genuine interest in our welfare, and some of us still thought of him as our first choice as a medical adviser.

Dr. Townshend left his practice, not because he was unsuccessful in medicine, but because he was needed for work in Columbus and in Washington and in the country at large. He lived to the age of four score years, his last days passed in the calm contentment which comes to one who had made his life worth while. When we visit the State University and see on its campus the beautiful building known as Townshend Hall, we may remember that it is a memorial to one of our own number, whose career began with work well done, in a country practice, and whose devotion to human progress made him one of Ohio's first citizens—Dr. Norton S. Townshend, devoted physician, inspiring teacher, patriotic public servant, wise and unselfish statesman.

NOTE: Many of the facts used in this paper were taken from a sketch of the life of Dr. Townshend by his daughter, Miss Harriet N. Townshend of Columbus, Ohio.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

RESULTS OF THORACOPLASTY

IN advanced tuberculous disease, tissue destruction and cavity formation have taken place, the elasticity of adjacent segments of the lung is frequently reduced and the volume of the healthy lung is so reduced that it is incapable of filling the unyielding thoracic space. How can healing take place under such conditions?

Pulmonary cavities must be closed and remain closed. Fibrous tissue must not tear under the strain of ordinary thoracic movement, to insure against reactivation or hemorrhage. The scar must be solid, but at the same time its contraction should not pull thoracic viscera out of position to the extent that cardiorespiratory function is impaired. Certain patients are fortunate enough to make these adjustments spontaneously, arrest the process and enjoy moderate activity without reactivation. For a second group the problem has been solved by an adequate pneumothorax (or other temporary measure) which is maintained indefinitely with safety. There is a third group to which thoracoplasty is not applicable; patients who have such extensive disease and so distributed as to make it technically impossible to bring it wholly under control by any single method or combination of methods, must be excluded from this discussion.

A significant proportion of the tuberculous sick will not fall in the foregoing categories. The health of patients in this fourth group can be restored with surgical help. They are those patients who suffer from advanced disease with irreparable pulmonary damage.

A discrepancy exists between the volume of healthy lung and the volume of the thorax. Temporary measures have failed or present no reasonable chance of being effective. They have an equivalent of two healthy pulmonary lobes, the two on one side or one on each side. Preferably, the disease is stable. The thoracic cage can be refashioned and the diseased lung released from its anchorages. The permanently altered position of the chest wall will provide a permanent collapse.

Modern thoracoplasty will accomplish the following:

1. Fibrous tissue is released, permitting cavity closure.
2. Pulmonary tissue which has been partially damaged but not totally destroyed, whose elasticity has been impaired by fibrosis, is relaxed.
3. Limitation of motion is imposed on the diseased lung.
4. The collapse of the disease can be made highly selective with conservation of healthy portions of the lung.
5. Disturbances due to distortion of the thoracic viscera such as upward displacement of the lower lobe and lateral displacement of the heart and great vessels, are corrected.

All of these readjustments are common accomplishments of a free pleura pneumothorax and thoracoplasty. In addition to these considerations, there are added benefits which are unique for thoracoplasty:

6. Thoracoplasty adjusts the thoracic volume so that it comes to equal the volume of the healthy lung. In other words, the functionless portion of lung is placed under permanent control.
7. The risk of tuberculous or mixed empyema developing in an artificially maintained air space is eliminated.
8. The risk of spontaneous pneumothorax on the side of treatment is greatly lessened.

The ultimate fate of patients treated by thoracoplasty cannot be determined until more time has elapsed. However, a preliminary study made of patients treated successfully by thoracoplasty and discharged with the consent of their medical advisers, is most encouraging Of 107 patients discharged five or more years, 94.4 per cent are living; 2.8 per cent died of tuberculosis and 2.8 per cent died of other causes. Of 315 patients discharged under five years, 97.8 per cent are living; 0.3 per cent died of tuberculosis and 1.9 per cent died of other causes.

While exactly comparable end results are impossible to find, it is fair to assume that the severity and extent of the process from which the groups under discussion suffered, were more threatening than those of the average patient undergoing sanatorium treatment. Yet, they seem to fare better, for a study of 6,906 patients discharged alive from various sanatoria in this country revealed that only 60 per cent of those discharged with consent were living after a period of five years.—Richard H. Overholt, M.D., Jour. of Amer. Med. Assn., Nov. 15, 1941.

A mixture of carbolic acid and camphor has been found effective in the treatment of "athlete's foot," Edward Francis, M.D., Washington, D.C., states in *The Journal of the American Medical Association* for December 6. The mixture is nonirritating and may be painted between the toes several times a day.

All Physicians To Get Opportunity To Enroll for Service in Some Capacity Toward Winning the War; New Blank To Be Issued by Procurement and Assignment Service

EVERY Ohio physician will be given an opportunity very soon to volunteer for some type of service which will be instrumental in winning the War, according to plans being completed by the Procurement and Assignment Service of Physicians, the official liaison between the American Medical Association and the War and Navy Departments, as *The Journal* went to press.

In view of new and urgent demands of the Army and Navy for additional medical personnel, the Procurement and Assignment Service is preparing and will have in circulation soon, a NEW ENROLLMENT BLANK for use of all members of the medical profession who are not on active military service or who do not hold medical reserve commissions.

The new enrollment blank will be a substitute for the enrollment blank issued by the Procurement and Assignment Service on December 18 and which was published in the December 27 and January 3 issues of The Journal of the American Medical Association. (A copy of that blank was sent on December 24 to the Medical Preparedness Chairman and the President and Secretary of all county medical societies in Ohio.)

The purpose of the enrollment blank authorized on December 18 and which has been in circulation for the past month was to give physicians willing to enter active military service **immediately** an opportunity to volunteer. The Procurement and Assignment Service has assumed that a physician who signed that blank was prepared to report at once for active service.

MANY MORE DOCTORS NEEDED

At that time the Army was in need of approximately 1,500 physicians to bring its medical personnel to war strength. Records of physicians who signed that blank which are on file with the American Medical Association have been checked and those meeting the specified qualifications have been, or will be, instructed as to procedure for filing an immediate application for a commission in the Army Medical Corps.

Although it is believed that a sufficient number of physicians volunteered their services by signing the first enrollment blank to meet the need of the Army on December 18 (1,500 physicians), **the situation has changed materially during the past few weeks. In other words, in a short time the Army and Navy will need many more physicians.** For this reason the Procurement and Assignment Service plans to step up its program of recruiting physicians and to lay plans for a long-range program of **mobilizing the entire medical profession in an orderly manner for services on both the fighting and home fronts.** The primary purpose of the NEW ENROLLMENT BLANK which will be issued to all physicians shortly is to make this long-range program effective.

How to Join Army or Navy at This Time

The Procurement and Assignment Service has advised that physicians willing to enter the Army or Navy IMMEDIATELY should make application directly to the Executive Officer, Procurement and Assignment Service of Physicians, 5654 Social Security Building, 4th and Independence Avenues, S.W., Washington, D. C., and that upon receipt of such an application necessary forms will be returned with instructions regarding immediate application for a commission.

Physicians who DO NOT want to enter the Army or Navy immediately should not enroll with the Procurement and Assignment Service at this time but wait until they receive the NEW ENROLLMENT BLANK referred to in the accompanying article.

The maximal age for original appointment in the Army is 55 and in the Naval Reserve 50 years of age.

1. **Here is the big problem which confronts the Procurement and Assignment Service:** The War Department has announced plans for increasing the size of the Army to 3,600,000 men

during 1942. The War Department conservatively estimates it needs six medical officers per 1,000 men, excluding medical officers needed for administrative duties at army posts and establishments. **On this basis an Army of 3,600,000 men will require at least 21,000 physicians**, or approximately 9,000 more than were on active duty on December 8 when war was declared. This does not take into consideration the anticipated needs of the Navy, the personnel of which will be increased during the year.

The chief function of the Procurement and Assignment Service is to recruit, if possible, the **additional thousands of medical officers which will be needed** by the augmented Army and Navy; see that adequate medical personnel is left at home to take care of the medical needs of the civilian population; and try to allocate and organize the medical personnel required for civilian needs so that inefficiency and dislocations can be kept at a minimum.

PROPOSED RECRUITING PLAN

2. Here is the way the Procurement and Assignment Service is planning to carry out its gigantic program of mobilizing the medical personnel of the country:

(1) In the near future, a NEW ENROLLMENT BLANK, already referred to, will be sent to every physician who is not at present on active duty with the Army or Navy or a member of the Reserve Corps.

(2) Each physician will be furnished with a list of governmental agencies, in addition to the Army and Navy, needing medical personnel and with data on the physical requirements for service with such agencies.

(3) Each physician will be asked (1) to indicate that he is willing to volunteer his services in some capacity in the interest of the national emergency and (2) to state his first, second, third and fourth choice of the agencies in which he will be willing to serve for the duration of the war. A list of agencies and units will appear on the blank.

(4) Each physician will be requested to make a physical evaluation of himself to determine with which agency he is physically qualified to serve and to so indicate on the blank.

(5) Each physician who enrolls in some capacity with the Procurement and Assignment Service by signing the blank will be provided with a numbered button, certifying that he has offered his services in the interests of national defense. "Thus", as the Procurement and Assignment Service has stated, "those who remain at home in an essential capacity will derive the satisfaction of knowing that they have offered their utmost to the national emergency and that this offer has been formally recognized by the Procurement and Assignment Service."

By mobilizing the medical profession in this manner, the Procurement and Assignment Service hopes to be able to place physicians in positions commensurate with their professional training and experience. As Major Sam F. Seely, executive officer, Procurement and Assignment Service, has expressed it: "We hope to fit round pegs into round holes". In addition, the Procurement and Assignment Service hopes to keep dislocations of medical personnel in all communities and in essential governmental agencies at a minimum.

Ohio Doctors Under 45 Years of Age Number About 3,600

Obviously, one of the major questions in the minds of members of the medical profession is: How many Ohio physicians are 45 years of age or under and therefore eligible for military service, if physically qualified, under the Selective Service Act and how many are 36 years of age or under —the age group especially wanted by the Army and Navy?

It is difficult to provide an absolutely accurate answer to this question because of age changes, deaths, etc., and because approximately 650 Ohio physicians are now on active duty.

However, a breakdown of the approximately 9,500 Ohio questionnaires filed in the Fall of 1940 and Spring of 1941 with the American Medical Association shows the following approximate figures, including Ohio physicians now in the service:

The number of Ohio physicians under 45 years of age is approximately 3,600 or 38 per cent of the total number filing questionnaires (9,500).

The number of Ohio physicians under 36 years of age is approximately 2,000 or 21 per cent of the total number filing questionnaires.

In all probability the great majority of the 650 physicians now on active service are in the age group of 45 years or under. Assuming that 600 of those on active service are 45 years of age or under, approximately 3,000 Ohio physicians of that age group are theoretically available to meet future demands of the Army and Navy, although admittedly some of that number will be unable to meet the physical requirements.

3. Here is the situation which confronts the medical profession: All male physicians under 45 years of age are subject to call for active military service under the Amended Selective Service Act. Undoubtedly, **physicians will not be drafted if the Procurement and Assignment Serv-**

ice is able to fill the needs of Army and Navy through volunteers. Physicians who enroll with the Procurement and Assignment Service and are called for active military service will be commissioned as officers in the Army Medical Corps or Navy Medical Reserve Corps upon induction into the service. A physician inducted into the service under the Selective Service Act probably would have to wait several months following induction before being commissioned.

Physicians over 45 years of age, except in special instances and where they may have some special qualification for active service, will be expected to enroll with the Procurement and Assignment Service for service on the home front. Such physicians would be retained in their present capacities if in the opinion of the Procurement and Assignment Service they are essential for the needs of the civilian population, in industrial practice, in a teaching capacity, etc., but they would be making themselves available if necessary for assignment to governmental agencies requiring medical personnel where shortage of medical personnel exists because younger men have entered the Army or Navy. Moreover, physicians over 45 years of age will have to take over more and more responsibilities in providing professional services for Selective Service Boards, public health agencies, civilian defense organizations, and similar home-front groups. Physicians under 45 who cannot meet Army and Navy physical requirements also will be expected to make their services available for such assignments.

Therefore, **every physician, regardless of age, will find as the war continues that his services in some capacity will be required in the winning of the war,** with those 45 years or under (especially those 36 or under), who can pass the physical requirements, serving with the Army or Navy and those over 45 years of age manning the essential services on the home front.

ABOUT 650 IN SERVICE

Because of the pressure of other activities, the War and Navy Departments have been unable to furnish *The Journal* with the official number of Ohio physicians now on active duty. Based on unofficial data, it is estimated that the number is approximately 650, consisting of Army medical reserve officers, former National Guard medical officers, naval reserve officers and officers of base and evacuation hospital units.

According to Colonel E. C. Jones, Medical Corps, corps area surgeon, Fifth Corps Area, Fort Hayes, Columbus, 475 Ohio physicians holding medical reserve commissions have accepted extended active duty with the Army. To date, 71 Ohio doctors in the medical reserve corps have been granted deferment because of physical disqualifications and 154 Ohio physicians resigned their commissions when called to active duty. Many of those who resigned are within the 21 and 45 years age group subject to draft under the Selective Service Act.

Colonel Jones states that many of those who resigned—practically all of them before December 8 when war was declared—indicated at the time of resignation that they would accept active duty "if a real emergency existed". It is the hope of the War Department, according to Colonel Jones, that such men who have had the basic training for duty with troops, will volunteer their services now that the country is at war.

Whether physicians who resigned their reserve commission and who seek reinstatement will be reinstated with the rank held at the time of resignation is problematical, according to Colonel Jones. This will depend a lot on their particular qualifications and record while in the reserve corps, he stated. However, he said, those who might have to take a lesser rank, for example a first lieutenancy instead of a captaincy, undoubtedly would be in line for promotion at an earlier date than officers just entering the reserve corps, because of previous training and experience.

Plans are being made by Colonel Jones to call up all medical reserve officers deferred because of physical disqualifications for another physical examination. He believes that some of the physicians in this classification could be made available for active duty providing they would submit to remedial procedures and that others could be made available for limited service.

Following is a tabulation of the annual base pay and monthly allowances for officers in the Army and Navy, respectively:

		ALLOWANCES			
		Rental Allowance		Subsistence Allowance (30 days)	
Grade	Annual Base Pay	With Dependents	Without Dependents	With Dependents	Without Dependents
Colonel	$4,000	$120	$80	$36	$18
Lieut. Col.	3,500	120	80	54	18
Major	3,000	100	60	54	18
Captain	2,400	80	60	36	18
1st Lieut.	2,000	60	40	36	18
Captain	$4,000	$120	$80	$36	$18
Commander	3,500	120	80	54	18
Lieut. Com.	3,000	100	60	54	18
Lieutenant	2,400	80	60	36	18
Lieutenant (Jr. Grade)	2,000	60	40	36	18

The annual base pay is increased at the rate of 5 per centum thereof for each three years of service up to 30 years.

The Federal Government recently granted an undisclosed sum for research in the physiology of high-altitude flying, under the direction of Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati College of Medicine, and for research in chemotherapeutic treatment of wounds to be directed by Dr. Mont R. Reid, professor of surgery at the same institution.

Vacation Over for Draft Board Examining Physicians; Stepped-Up Program Needs Help of Local Doctors To Make "Screening" Examination of Registrants

BECAUSE the Selective Service System must swing from a peace-time program into a war-time program in order to provide more manpower for the armed forces, some modifications have been made by Ohio Selective Service Headquarters, pursuant to orders from Washington, in the method of conducting physical examinations of registrants.

For the past six months the one-physical examination plan, conducted by an Army Examining Board, has been in effect in most parts of Ohio. This plan was successful under peace-time conditions. During that period the services of local physicians attached to local Selective Service Boards were not required except in a comparatively few communities and to meet unusual situations.

From now on, however, the services of local physicians who have been appointed examining physicians for local Selective Service Boards will be required in order that the Selective Service System will be able to meet the new demands for additional personnel for the armed forces.

Therefore, the hundreds of Ohio physicians who have been giving their services since the Fall of 1940 as examiners for local Selective Service Boards should stand by and resume the examining work when their respective boards request their assistance. In other words the "temporary vacation" granted most local examining physicians some months ago is over.

SCOPE OF EXAMINATION CURTAILED

However, the scope of the physical examination which local physicians will be required to make has been curtailed. From now on they will be required to make what has been termed a "screening" examination which will not require nearly as much time as the more complete physical examination which each registrant must pass before induction. The more complete and final examination will be given by the Army Examining Boards which have been functioning for the past six months at 10 examination centers. **The "screening" examination procedure will not require the local physician-examiner to draw blood for a laboratory examination, to make eye-card visual tests or to take a blood pressure reading.** These phases of the examination will be conducted by the Army Examining Board.

All physicians who have been appointed local Selective Service examiners have been notified by State Selective Service Headquarters that their services will be needed immediately.

In a recent bulletin issued to the Chairmen of the Preparedness Committees of County Medical Societies, the Committee on Medical Preparedness of the State Medical Association issued the following plea for prompt local cooperation:

URGES COOPERATION

"The Committee on Medical Preparedness of the Ohio State Medical Association earnestly requests the chairman of the Committee on Medical Preparedness of each County Medical Society to cooperate fully with their respective local Selective Service Boards on this matter. **Please urge all local physician-examiners to respond promptly to calls issued by local boards.** If State Selective Service Headquarters finds it necessary to increase the number of physician-examiners or to make replacements, it will notify the State Medical Association office in Columbus and that office will ask local chairmen to suggest the names of physicians who can serve in the capacity of examiner.

"This is one way the medical profession of Ohio can help to win the war. It is hoped any physician who may be called upon to assist Selective Service will make his services available immediately."

Following is detailed information regarding the modifications in the physical examination procedure, taken from a special circular issued by State Selective Service Headquarters to all local Selective Service Boards:

TEXT OF MEMORANDUM

"The change from a status of procurement for peace-time program to war-time program will necessitate the complete cooperation of all elements of the Selective Service System. To conserve the time of Army Board examination groups and to avoid forwarding obvious disability cases to the Army Examining Board, and to permit local boards to clear the appeal status of registrants before they receive their final Army type examination, changes in the plan are made to conform to Memoranda, National Headquarters, No. 1-304, 1-307, 1-309, which will be released to local boards under separate cover. In conformity to these memoranda and directives from National Headquarters, the pre-induction examination by Army Examining Board, as outlined in Circular No. 64, will continue without change.

Examination by Local Examining Physicians and Examining Dentists:

"a. The requirement in the examination by local board examining physicians will be such as to determine:

"First, Whether the registrant has any physical or mental defects which manifestly and obviously disqualify the registrant for general military service.

"Second, Whether the registrant has any physical or mental defects which would manifestly and obviously disqualify the registrant for general military service but not for limited military service.

"In both of these instances, the examining physician will indicate by answering "yes" or "no" and, if the answer is "yes", briefly stating the principal disqualifying defect. In all cases of doubt the answer should be "no".

"b. The answers to the above will be made on Page 4 of Form 200, as described in Memorandum 1-309, local board release No. 66. Defects listed in Part 1 are those disqualifying for general military service, and defects listed in Part 2 those which disqualify for general military service but not for limited military service. DSS Forms 200 will continue to be used until a new form combining Forms 200 and 221 is available for distribution. Purchase of a stamp will not be authorized. Statement on Forms 200, Page 4, will be mimeographed and forwarded to all local boards.

"c. The examination outlined above by local board examining physicians will consist of a careful physical inspection to cover the above requirements. No laboratory examinations, no eye-card visual tests, no blood pressure taking will be required. The specimen of blood for blood serology will be taken by the Army Examining Board as at present. Page 1 of Form 200 (until Forms 221 are available) will be completed down to and including the date and signature of the person examined. No entries need be made on Page 2. The examining physician will sign beneath the statements on Page 4.

"d. Men who have already been examined by local board physicians and classified 1-A and are now awaiting examination by Army Examining Board need not be examined again locally to conform to these changes.

"e. This preliminary examination may be made at the examining physician's office or in a group examination method as heretofore accomplished by many boards.

"f. The inauguration of this preliminary examination will be accomplished by each local board immediately following the mailing of orders for the January Army Board examination (Requisition No. 2) now scheduled, so as to be prepared for the requisition No. 3 for Army Board examination to be scheduled beginning January 26, 1942.

"g. All available local sources of information to eliminate the mentally and morally unfit and the chronic invalid cases will be used."

OLDER PHYSICIANS WILL BE NEEDED FOR DUTY ON THE HOME FRONT

The following statement has been authorized by the Committee on Medical Preparedness of the Ohio State Medical Association:

"As the war program of the nation is accelerated, the services of many younger physicians—those under 45 years of age—will be required by the Army and Navy. This will mean that physicians in the older age brackets will have to shoulder additional responsibilities in their respective communities.

"One of these responsibilities will be examining registrants for local Selective Service Boards. Many older physicians are at present examining for the draft boards. As time goes on, many more will have to be called upon for such services, taking the places of younger men who will enter military service.

"We are confident that the older practitioners will rally to this responsibility and others which will arise from time to time. Older men who desire to have a direct part in helping to win the war should stand ready to take over examining duties for local draft boards when their services are required to fill vacancies left by younger physicians entering military service. Also, they should actively cooperate on Civilian Defense activities and other medical-health work, some of which is being done at present by younger practitioners."

Dr. Worstell On Active Service; Kefauver Acting Supervisor

Dr. Henry P. Worstell, Columbus, supervisor of the Medical Section, State Industrial Commission, has reported at Great Lakes, Ill., for active duty in the U. S. Navy, in which he holds the rank of Lieutenant-Commander in the Medical Corps. The Commission has granted Dr. Worstell a leave of absence and has designated Dr. Addison L. Kefauver as acting supervisor of the Medical Section. Dr. Kefauver graduated at Western Reserve University School of Medicine in 1926 and served his internship at Grant Hospital, Columbus. After nine years in private practice at Stoutsville he joined the medical staff of the Industrial Commission in December, 1936. For the past three years he has been supervising medical activities for the Commission in the Cleveland area.

Cleveland Lakeside Hospital Unit and Dayton Medical Specialist Group Now On Active Military Duty

TWO Ohio volunteer medical military units were on active duty at the time this issue of *The Journal* went to press. Lakeside Hospital Unit of Cleveland, officially known as the Fourth General Hospital of the United States Army, had been sent to Fort Jackson, S. C., and Medical Specialist Unit No. 57, United States Naval Reserve, which is composed of nine Dayton physicians, had been sent to a naval hospital near San Diego, California.

Two other existing Ohio units had not as yet received orders to active service. They are Evacuation Hospital No. 49, Army Medical Corps, which is composed of 30 faculty members and hospital staff physicians at the Ohio State University College of Medicine, and the Naval Reserve Medical Specialists' Unit No. 110, composed of 10 members of the Cleveland Clinic staff.

Plans for formation of a medical military unit at Cincinnati General Hospital and the University of Cincinnati College of Medicine were being drawn up.

LAKESIDE UNIT PERSONNEL

Among the officers of the Lakeside Unit are 45 physicians from the faculty of Western Reserve University School of Medicine and the staff of University Hospitals. The following list of physicians in the group which left for Fort Jackson was obtained from the office of superintendent of Lakeside Hospital. The surgical service includes: Lt. Col. William C. McCally, chief; Majs. David A. Chambers, Donald M. Glover, James J. Joelson, John H. Lazzari, and W. H. McGaw; Capts. S. E. Blandford, Paul W. Gebauer, William Gernon, C. A Hamann, Donald A. Kelly, John J. Thornton, Vladimir L. Tichy, Elden C. Weckesser, Webb P. Chamberlain, Jr., and Charles W. Elkins; and First Lieuts. E. P. Maurer, R. E. Gray, Valdemar M. Jordan, Cleon C. Couch, and William W. Markley.

Officers of the medical service are: Lt. Col. Joseph M. Hayman, chief; Majs. R. O. Egeberg, W. R. Hallaran, E. O. Harper, Boyd King, William A. Read, R. L. Cox, and Irwin C. Hanger; Capts. Paul M. Glenn, Leo Walzer, Graham T. Webster, Walter M. Solomon, David R. Weir, L. H. Bronson, and Frank M. McDonald; and First Lts. J. R. McKay and Karl D. Rundell.

Maj. W. B. Wartman, Capt. Joseph R. Kahn and First Lt. H. H. Johnson are on laboratory service. Roentgenological officers are Maj. Eugene Freedman, Capt. Joseph L. Morton, and First Lt. Isadore Meschan. Maj. Guy Bruglar as administrative officer.

Dr. Torald Sollmann, Dean of the Western Reserve School of Medicine, declared that mobilization of the unit will mean heavier burdens for the remaining teachers, but he said that plans for this eventuality had been carefully drawn up.

NINE IN DAYTON GROUP

The Naval Reserve Unit composed of Dayton physicians was organized in 1934 by Dr. Walter Simpson. Its personnel includes: Comdr. Simpson, internist; Lt. Comdr. Harry R. Huston, surgeon; Lt. Comdr. Jerome Hartman, orthopedic surgeon; Lt. Comdr. Arthur M. Culler, ophthalmologist; Lt. Comdr. Marion W. Coleman, urologist; Lt. James L. Sagebiel, neuropsychiatrist; Lt. Thomas P. Sharkey, alternate internist; and Lt. Norman J. Birkbeck, roentgenologist. Another of its members is a dentist.

The Dayton unit left for the West coast Jan. 12. On its staff also are six nurses, but their mobilization orders had not been received at the time the physicians were called.

Departure of the Lakeside Unit recalled in the minds of many the events of a quarter century ago, when its predecessor, also known as the Lakeside Unit but officially titled Base Hospital No. 4, became the first Army contingent to carry

Hospital Units Should Not Be Formed in Small Cities

It has been reported that the physicians in several counties of moderate population are contemplating the formation of volunteer hospital units for service with the Army or Navy.

The Committee on Medical Preparedness of the State Medical Association has advised that this not be done. The Committee points out that some of the metropolitan areas in Ohio are able to spare the number of physicians necessary for such units but that most of the counties cannot form such a unit without stripping the community of necessary medical personnel. When and if additional evacuation or base hospital units are needed the Army or Navy will handle the matter in a way which will not jeopardize the medical and health needs of any community, the Committee has advised.

the American Flag to foreign soil in the first World War.

HISTORY REPEATS ITSELF

In that war, as in this one, the Lakeside Unit was one of the first called to active duty after the United States became a belligerent. More than a year prior to its mobilization in 1917, it had been organized by Dr. George W. Crile upon his return from France, where he and a group from Lakeside Hospital had been engaged in base hospital work. It left Cleveland May 6, 1917, exactly one month after the declaration of war, and sailed two days later from New York for the war zone. Dr. Crile accompanied the unit as director.

After landing in Liverpool, England, May 18, the officers and nurses of the hospital were received by the King and Queen at Buckingham Palace. Several days later they embarked from South Hampton and proceeded to France. When they sailed up the Seine River, they were greeted by rousing cheers of the civilian population and upon landing they were officially received by British and French officers as the first American troops in France.

PRESENTS OFFICIAL GAVEL

At Rouen, where they took over General Hospital No. 9 of the B.E.F., the Clevelanders handled thousands of injured British and French soldiers evacuated from the front. The hospital was repeatedly subjected to severe bombings by enemy aviation. When it was demobilized on January 23, 1919, Dr. Crile ordered the flagpole cut up and returned to Cleveland as a souvenir. One segment of it was fashioned into the gavel with which sessions of the House of Delegates of the Ohio State Medical Association are called to order.

In 1917 the Lakeside Unit had 27 officers, 64 nurses, and 155 enlisted men; today its complement is normally 54 officers and 120 nurses. The number of enlisted men has not been stated. According to available records, no physician who served as an officer of Base Hospital No. 4 was on the staff of the Fourth General Hospital as it left for Fort Jackson.

Medical officers of Base Hospital No. 4 in 1917-18 included Drs. William R. Barney, Marion A. Blankenhorn, Sam Brock, Frank E. Bunts, Burt G. Chollet, Chester D. Christie, B. B. Colvin, John B. Corser, George W. Crile, Richard Dexter, Arthur B. Eisenbrey, Frank B. Ficklin, Harry L. Gilchrist, Allen Graham, James T. Gwathmey, Joel Hardesty, Benjamin I. Harrison, Walter C. Hill, Drury Hinton, Charles Hoover, Merrill B. Hosmer, Theron S. Jackson, Howard T. Karsner, William E. Lower, Alan MacLachlan, Gordon N. Morrill, Hoyt B. Meader, Theodore F. Myler, James T. Montgomery, Harry V. Paryzek, H. D. Piercy, Maurice L. Richardson, Walter B. Rogers, Bertram S. Rothwell, Henry L. Sanford, Harold K. Shawan, Leroy B. Sherry, Charles W. Stone, A. C. Thompson, Thomas P. Shupe, William S. Sykes, Arnold D. Tuttle, and Herbert V. Weihrauch.

All Physicians Entering Military Service Should Get Advice About the Soldiers' Civil Relief Act

Physicians who have entered the military service, those contemplating doing so, and those who by reason of age are eligible for military service under the Selective Service Act should make proper plans for protecting their property interests and life insurance during their terms of service.

Every such physician should seek the advice of competent legal counsel on such matters, especially requesting information and advice regarding the provisions of the Soldiers' and Sailors' Civil Relief Act of 1940, "suspending enforcement of certain civil liabilities of certain persons serving in the military and naval establishments".

This Federal Act does not relieve a person in the military service from payment of his obligations or fulfillment of his legal contracts but offers him a moratorium on some of his obligations and contracts until he has been discharged from military service, when it has been determined that his ability to meet his obligations and contracts is impaired because of military service.

A moratorium on the payment of premiums on life insurance contracts up to a certain amount is provided. This provision of the act is administered through the Veterans' Administration. All other provisions of the law are within the jurisdiction of the local courts. The law specifies what procedures should be taken.

Generally, the protection afforded is against eviction or distress for non-payment of rent; against foreclosure of mortgages, deeds of trust, installment sale contracts, etc.; against penalties assessed because of inability to pay taxes, special assessments or levies; and against the taking of undue advantage in court proceedings because of the absence of a party to such action.

Space will not permit publication of the detailed provisions of the act. Detailed information should be obtained by a physician, if interested, from his personal attorney. In some instances a physician may be able to work out with those holding his mortgage or note a satisfactory agreement regarding deferment of payments on the principal, perhaps interest, but where satisfactory arrangements cannot be made, legal advice should be obtained and the provisions of the civil relief act utilized if necessary.

WAR NOTES

OHIO'S three class A medical schools—Western Reserve, University of Cincinnati and Ohio State University—are planning to meet the recommendations of the War Department for continuous medical education during the war emergency.

Under present plans the summer vacations will be eliminated which will enable the schools to graduate medical students in three years instead of four, thus providing approximately a third larger number of graduates in a third less time. If a majority of the medical schools of the country follow this policy, the supply of physicians will be substantially increased and a larger number of physicians will be made available for the needs of the armed forces and the civilian population.

Details for the accelerated program have not as yet been worked out by the deans of Ohio's schools but this big job is underway in all three schools. Probably the freshman class in each school will be enrolled and start its work on or about July 1. Coordination of the contemplated changes with undergraduate colleges will have to be worked out and adjustments made in faculty personnel to meet the stepped-up schedule It is the intent of the deans of Ohio's schools to provide adequate safeguards against policies and procedures which would in any way adversely affect the quality of the instruction and training provided medical students. Information as to the detailed procedures in each school will be published in *The Journal* when available.

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Maj. Paul S. Fancher, of Delaware, was recently transferred from Fort Hayes, Columbus, where he was chief of medical service, to Camp Lee, Virginia.

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Dr. Albert Pearlman, of Cincinnati, sailed from New York for London recently to join the Royal Army Medical Corps. He volunteered for service in England in response to the Red Cross appeal last year.

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The report of "surprisingly high physical fitness" found among English selectees in the age group between 37 and 40 years, submitted by the London correspondent of *The Journal of the American Medical Association,* is held of unusual interest because of the extension of draft ages in America. Six out of ten in this group have been found fit for the fighting services in England, the correspondent writes.

"The authorities have been agreeably surprised by the high standard of fitness of the older men", he says. "It was thought that men in their early thirties would show the effect of poor feeding in childhood during the last war and the sedentary lives they have led, but statistics disprove this... The Germans claim that their men are far healthier than ours, but the fact is that their examination for army service is not so strict as ours".

Each month The Journal through this new department, "War Notes", will endeavor to provide its readers with information about the war and war preparations of interest to the medical profession and with news of physicians in the armed services. In addition, special articles will be published on events and developments of major importance.

Readers of The Journal are invited to send in personal items, etc., regarding physicians with the military forces and physicians on active duty are urged to send in news of interest about themselves or their colleagues to the extent military censorship will permit.

Subject to space limitations and censorship agreements with military authorities, The Journal will attempt to make this new department of reader-interest and news value.

* * *

Reserve Commissions in the Army and Navy are still being offered to junior and senior students in acceptable medical schools and first-year interns, according to a communication from the office of Brig. Gen. Lewis B. Hershey, Director of Selective Service, to local draft boards. Holders of these commissions are permitted to complete their schooling and one year of internship before being called to active duty. However, such medical students and interns who do not apply for commission are placed in Class I-A by draft officials, if they are not deferred for other reasons and are found physically qualified for military service.

Deferment in Class II-A may be granted to first and second year students, pre-medical students accepted by a medical school, and those junior and senior students and interns whose applications for commissions have been rejected, Gen. Hershey said. He emphasized, however, that no group deferment is permissible under the Selective Service Act, and that each case must be decided by a local board on its merits.

Junior and senior medical students whose applications for commissions have been rejected for physical reasons should enroll with the Procurement and Assignment Service for other assignment, according to a statement from that agency. Interns who have completed more than 12 months internship, assistant residents, fellows, residents, junior staff members, and staff members under the age of 45 who do not hold reserve commissions should enroll with the Procurement and Assignment Service.

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Allergy has been officially recognized as a specialty in the Navy as a result of a recommendation by the Commanding Officer of the Naval Medical School and approval by the Surgeon General of the Navy. Arrangements are being made to provide postgraduate instruction in this field for naval medical officers.

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The death rate in the Army from disease is now less than 10 per cent of the rate for 1917 and 1918, according to an article in the January issue of *The Military Surgeon.* War Department Statistics show that marked improvement has been noticed in the rates of almost all infectious diseases over the same rates for the first World War. Particularly gratifying to Army officials is the drop in the rate for venereal diseases from 107 per 1,000 soldiers in 1917 to the present rate of 40 per 1,000 soldiers. This is attributed to an intense campaign of health education as well as to new medical procedures for prevention and treatment.

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Physicians who are graduates of recognized medical schools may receive appointments as First Aid Instructors by applying to National Red Cross Headquarters, Washington, D. C., or to area headquarters in San Francisco, St. Louis, and Alexandria, Va., according to information released by the American Red Cross. More than 35,000 Red Cross First Aid Instructors are now engaged in meeting the demands for first aid training in their own communities, and a corps of field representatives is at work training scores of additional instructors in the West Coast area, where demands for the instruction are heaviest.

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Dr. George W. Crile, of Cleveland, who has served his country as an army medical officer in the Spanish-American War and World War I, is back in service again, this time for the Navy. Dr. Crile was recently sworn in at the Cleveland Naval Recruiting Office as an honorary consultant to the Naval Medical Corps, under appointment from the Naval Bureau of Medicine and Surgery. He and his associates have been working for some time on the problem of dive bomber pilots' losing consciousness when their planes reach extremely high speed.

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Among Ohio physicians who have been called to active duty recently as officers in the Naval Reserve are: Dr. Judson Wilson, Dr. W. Eugene Masters, Dr. H. P. Worstell, and Dr. Harry M. Sage, of Columbus; Dr. F. A. Smith and Dr. W. M. Johnston, of Akron; and Dr. W. A. Neill of Toledo.

Drs. Wilson, Masters, and Sage were ordered to the Marine Corps base at Quantico, Va. Drs. Worstell, Smith and Johnson are at the Great Lakes (Ill.) Naval Training Station and Dr. Neill at the San Diego Naval Training Station.

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Promotions to the rank of captain from previous rank of lieutenant were recently announced for Dr. B. F. Wills, of McArthur, and Dr. Sander Cohen, of Cincinnati, both officers in the Army Medical Corps. Dr. Wills is stationed at Fort Bennington, and Dr. Cohen is at Fort Thomas.

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Dr. Winchell McK. Craig, a native of Washington C. H. and widely known among Ohio physicians, is on active duty as chief of staff at the new naval base hospital at Corona, California. Dr. Craig reported recently with a group of naval reserve officers from Rochester, Minn.

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Chlorine is now being allocated by the Office of Production Management. Health commissioners have been instructed by State Health Director Markwith to advise the following steps in ordering it for health protective measures: (1) Estimate 6-month requirements and order the full amount, indicating 30-day part shipments in the case of large orders; (2) place future orders 60 to 90 days in advance of expected delivery; (3) obtain local health commissioner's endorsement for orders; (4) in the event of difficulties in obtaining chlorine, request Ohio Department of Health to consult with manufacturer and OPM. High preference rating has been given public health needs for the gas.

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New address of the office of Surgeon General of the U. S. Army is 1818 H Street, N.W., Washington. It moved to that location recently from the new Social Security Building.

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Male students who will be affected by the Selective Service Act or who anticipate enlisting in the armed forces have been offered free physical examinations by the Student Health Service, Ohio State University. These examinations will be similar to those required by Selective Service. Purpose of this move is to give the students some notion of their physical status in advance of their actual draft orders or voluntary enlistment, so that they are better able to plan for their immediate future affairs. Results of these examinations are to be considered confidential and will be released to military authorities only on written order from the students themselves.

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No news is the fact that physicians, nurses, and others engaged in health protection activities are among the few groups permitted to buy automobile tires and tubes under the new rationing orders for rubber. However, as some Ohio physicians have already discovered, being on the preferred list does not **ipso facto** mean a doctor can buy tires any time he wants them. The proper procedure for obtaining tires is to apply to the local tire rationing board for certification. If need is proved, and if the community's monthly ration has not been exhausted, the board may authorize the purchase. Several rationing boards have had occasion to make it very plain that local importance, "pull," or being a friend of a friend of somebody in Washington has very little bearing on whether the applicant may buy a tire.

* * *

Fiorello LaGuardia, Civilian Defense Director, has appointed Dr. Elliott C. Cutler, former professor of surgery at Western Reserve University School of Medicine and now Moseley professor of surgery at Harvard University, to the OCD Medical Advisory Board. Dr. Cutler has been charged with gathering historical background of America's medical civilian defense program.

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According to data in the office of the State Association and other reliable sources of information, the following Ohio physicians were on duty as Army medical officers in the Phillipine Islands when last heard from: Maj. James Bahrenberg, of Canton; Maj. Calvin G. Jackson, of Kenton; Lieut. Charles B. Armstrong, of Cincinnati; Lieut. John A. Marsico, of Lorain; Lieut. Webster C. Smyers, of Dayton; Lieut. Mark G. Herbst, of Canton; and Lieuts. Julien M. Goodman, Neil M. Burr, and Ralph E. Hibbs, all of Cleveland.

Three other Cleveland physicians who are reported to be on active duty in the Pacific theater are Lieut. W. R. Tupper, who is at an Army hospital in Alaska, and Lieuts. Ralph Zupanec and McCleery Glazier, who have been assigned to battleships.

Columbus—Dr. Jonathan Forman, physician-member of the Ohio State Council of Nutrition for Defense, has recently made addresses on nutritional topics before the following groups: Cleveland, P.-T.A.; Columbus Kit Kat Club; Marion Nutrition Council; Columbus Altrusa Club.

New Regulations On Signing Of Workmen's Compensation Fee Bills; Effective March 1

EFFECTIVE March 1, 1942, a fee bill for treatment rendered a claimant of the State Industrial Commission must be signed by the physician who renders the treatment, or a physician who actually sees and examines the patient and directly supervises treatment, according to a resolution adopted unanimously by the Commission on December 19, 1941. Such signatures must be in the physician's handwriting, and be duplicated underneath in legible printing or typewriting.

The resolution, which was approved by the Committee on Workmen's Compensation and The Council of the Ohio State Medical Association, was formulated for the purpose of giving the Industrial Commission more authority with respect to curbing certain abuses, primarily the one whereby some physicians have been signing medical reports and presenting fee bills for services rendered by assistants under circumstances where the services were not directly supervised by the physicians submitting the reports and fee bills, or where the patient was not seen or examined at any time by such physician. Officials of the Commission reported that this practice is being followed in connection with the operation of some emergency hospitals or field units established at the site of some large construction jobs.

Text of the resolution is as follows:

"Fees for examination or treatment will be paid only to a practitioner duly licensed to render such treatment or make such examination, and then only when such practitioner sees and examines the patient and directly supervises or renders such treatment; provided, however, that exceptions may be made at the discretion of the Commission in the case of diagnostic X-ray pictures or laboratory services.

"Payment of fees will be made only to practitioner rendering or supervising the services, as provided above, except in the case of hospitals having contracts with the Industrial Commission. Medical reports and fee bills shall be signed in his own handwriting by the practitioner rendering the services or directly supervising the treatment, together with the name of such practitioner in legible printing or typewriting beneath said signatures.

"Be it further resolved that the above Resolution shall be effective March 1, 1942, and apply to all medical services rendered on or after said date.

"Be it further resolved that the Commission's Resolution of July 10, 1931, entitled 'Payment of Fees to Doctors for Services Rendered by an Assistant' be, and the same hereby is, vacated effective as of March 1, 1942."

Cincinnati—Staff officers of Bethesda Hospital are: Dr. Daniel J. Davies, chief; Dr. David W. Heusinkveld, vice-chairman, and Dr. Halford F. Conwell, secretary-treasurer.

Deadline For 1942 State Association Dues! Names of Unpaid Members Must Be Removed From Journal Mailing List and Membership Roster After This Issue; Will Be Restored as Dues Are Received

TO comply with the United States Postal Regulations and the provisions of the Constitution and By-Laws of the Ohio State Medical Association, The Journal will be compelled to remove from its mailing list AFTER THIS ISSUE, the names of all physicians whose 1942 dues have not been received at the Columbus Headquarters Office.

Also, no later than March 1, the State Association will have to remove such names from its membership roster and report to the American Medical Association the names of physicians whose dues are unpaid, so the A.M.A. can remove such names from its roster.

THESE COMPLICATIONS CAN BE AVOIDED IF ALL PHYSICIANS WHO HAVE NOT PAID THEIR 1942 STATE ASSOCIATION DUES WILL TAKE CARE OF THIS IMPORTANT MATTER IMMEDIATELY.

Dues should be paid to SECRETARY-TREASURERS OF COUNTY MEDICAL SOCIETIES who will transmit them to the Columbus office. State Association dues for 1942 are the same as in 1941—$7.00.

As soon as a physician's 1942 dues are received at the Columbus office his name will be restored to the membership roster and the mailing list of The Journal.

Payment of dues during February will assure receipt of the March issue and subsequent issues of The Journal. Also, it will restore a physician to membership in the State Association and make him eligible to receive the benefits and services offered by the State Association and the A.M.A.

Although physicians in military service who were members of the State Association in 1941 and new members of local societies now on active service are entitled to waiver of 1942 State Association dues, the names of such physicians must be reported on special waiver-of-dues blanks to the State Headquarters Office by local Secretary-Treasurers to insure the retention of their names on the membership roster of the State Association. Local Secretary-Treasurers are requested to comply with instructions on this matter which have been sent to them direct.

Health Officer and Civil Service

The position of health commissioner of a city health district is now subject to and within the classified civil service, according to an informal opinion recently issued by Attorney General Thomas J. Herbert to Miss Gertrude Jones, chairman of the State Civil Service Commission. However, the Attorney-General further stated "that the position involving as it does a professional man in a particularized field could, if the facts so indicate, be subject to the provisions of Section 486-14, subsection 2, which provides for appointment, without examination, where peculiar or exceptional qualifications of a scientific, managerial, professional or educational character are required".

Post-Collegiate Assembly Cancelled

Due to the war emergency, the Ohio State University College of Medicine has cancelled its Ninth Annual Post-Collegiate Assembly, previously scheduled for March 5, 6 and 7 at Columbus.

In making the announcement, Dr. Hardy A. Kemp, Dean of the College, and Dr. Russel G. Means, Chairman of the Assembly, stated that it was the opinion of the faculty that it should render every service possible to the program of medical, military and civilian defense, and that it will cooperate, in an educational way, with the Ohio State Defense Council and other war-to-victory efforts.

MAKE YOUR RESERVATIONS NOW FOR 1942 ANNUAL MEETING, APRIL 28-30, COLUMBUS; IMPORTANT INFORMATION LISTED

PHYSICIANS who are planning to attend the Ninety-Sixth Annual Meeting of the Ohio State Medical Association at the Neil House, Columbus, Tuesday, Wednesday and Thursday, April 28-30, should reserve hotel accommodations NOW.

The best-attended state meetings in the past have been in Columbus. While the Capital City has made fine hotels, conveniently located, the best way to insure getting proper accommodations, is to glance over the appended list of hotels and their rates, select a hotel, and send in your request for reservations **immediately, on** the blank provided, **directly to the manager of the hotel selected.**

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
NEIL HOUSE (Headquarters Hotel) 35 South High St.	665	$3.30-5.50	$4.95-6.60	$5.50-7.70	$8.80 and up
DESHLER-WALLICK Broad and High Sts.	1000	3.30-7.70	4.95-11.00	5.50-11.00	8.80 to 19.80
FORT HAYES 31 W. Spring St.	350	2.50-3.50	4.00-6.00	4.00-8.00	7.00 to 18.00
CHITTENDEN High and Spring Sts	275	2.50-3.00	3.00-4.00	3.50-6.00	
SENECA 361 E. Broad St.	250	2.50-3.50	3.75-5.00	5.00-5.50	3.75 to 8.00 (Single) 5.50 to 10.00 (Double)
SOUTHERN High and Main Sts.	250	2.00-3.00	3.00-4.50	4.00-4.50	
VIRGINIA Third and Gay Sts.	150	2.20 and up	3.30 and up	4.40 and up	
BROAD-LINCOLN 631 E. Broad St.	140	2.00 and up plus 10%	3.00 and up plus 10%	4.50 and up plus 10%	3.50 and up plus 10%

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager____________________Hotel, Columbus, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, April 28-30, 1942, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:__________

☐ Twin Bed Room with bath ☐ Suite

Arriving April________at________A.M.________P.M.

PLEASE VERIFY MY RESERVATION.

Name____________________

Address____________________

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When, How and Where Physicians Should File Federal and State Tax Returns and Pay Taxes Which Are Due; Many Important Changes Made in Income Tax Statute

OHIO physicians, along with other taxpayers, must file certain Federal and State tax returns and pay certain taxes during the next few months. Stringent penalties can be avoided by prompt compliance with the laws governing such taxes. These returns and taxes, with the place and last date for filing or payment, include:

Federal Income Tax Information Return, listing salaries and wages paid to employees during 1941, with the Commissioner of Internal Revenue, Washington, D. C., **February 15;**

Ohio Personal Property Tax Return, with County Auditor, between **February 15 and March 31;**

Federal Income Tax Return for 1941, and first quarterly payment with the District Collector of Internal Revenue, **March 16;**

Social Security (Old Age Benefits) Tax, affecting all employers of one or more persons, first quarterly informational return and tax for January, February and March, 1942, **April 30;**

State Unemployment Compensation Tax (for employers of three or more persons), Employers' Contribution Report and Tax, with the Bureau of Unemployment Compensation, Columbus, **January 31**, for period October 1 to December 31, 1941, and quarterly thereafter;

Federal Unemployment Compensation Tax (for employers of eight or more persons), with District Collector of Internal Revenue, **January 31**, for calendar year 1941;

Ohio Use Tax, Department of Taxation, Columbus, **April 15**, for period January 1 to March 31, 1942, and quarterly thereafter.

To assist members of the Ohio State Medical Association who are required to file the above returns and pay Federal and State taxes, *The Journal* presents herewith detailed provisions of the tax laws especially affecting physicians, with suggestions as to procedure, based on authoritative information obtained from Federal and State tax officials.

FEDERAL INCOME TAX

Blanks for making Federal Income Tax returns for the calendar year 1941 have been mailed to all taxpayers of record in Ohio by the District Collectors of Internal Revenue.

These blanks, properly filled out and executed, must be filed with the collector of the district in which the taxpayer resides, on or before March 16, 1942, at which time the tax is due and payable. A taxpayer may elect to pay his tax quarterly, in which case the first installment of one-quarter of the tax would be due on March 16, and a quarterly installment every three months thereafter; June 15, September 15 and December 15.

A physician who is on active military duty should file his income tax return in the office of the Collector of Internal Revenue of the district in which he was a legal resident immediately prior to his entrance into active service. Compensation received for military service is subject to income tax.

Any physician required to make a return, but who fails to receive an income tax blank, should apply for one at the office of the Collector of Internal Revenue for the district in which his legal residence is located.

COLLECTORS AND DISTRICTS

Internal revenue districts of Ohio, together with the name and address of the collector, and the counties comprising each district, follow:

For the Columbus District (Ohio 11th) Collector of Internal Revenue Harry F. Busey, Federal Building, Water and Gay Sts., Columbus, comprising the following counties:

Adams, Athens, Coshocton, Delaware, Fairfield, Franklin, Gallia, Guernsey, Hocking, Jackson, Knox, Lawrence, Licking, Madison, Marion, Meigs, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Union, Vinton and Washington.

For the Cleveland District (Ohio 18th) Collector of Internal Revenue Frank F. Gentsch, 262 Federal Building, Cleveland; comprising the following counties:

Ashland, Ashtabula, Belmont, Carroll, Columbiana, Cuyahoga, Geauga, Harrison, Holmes, Jefferson, Lake, Lorain, Mahoning, Medina, Monroe, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas and Wayne.

For the Cincinnati District (Ohio 1st) Collector of Internal Revenue Thomas J. Connor, Customs Building, Cincinnati; comprising the following counties:

Brown, Butler, Clark, Clermont, Clinton, Fayette, Greene, Hamilton, Highland, Miami, Montgomery, Preble and Warren.

For the Toledo District (Ohio 10th) Collector of Internal Revenue Frazier Reams, Toledo; comprising the following counties:

Allen, Auglaize, Champaign, Crawford, Darke, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Logan, Lucas, Mercer, Ottawa, Paulding, Putnam, Sandusky, Seneca, Shelby, Van Wert, Williams, Wood and Wyandot.

Any taxpayer can obtain assistance in filling out his income tax return at the various district offices of internal revenue. Between now and March 16 field representatives of these offices spend a day or two in most county seats in the state in order to make their services more readily available to taxpayers. Announcement of their coming is usually made in local newspapers.

INFORMATION RETURNS

Every person making payments of salaries, wages, interest, rents, commissions, or other fixed or determinable income of $750 or more during the calendar year 1941, to a single person, a partnership, or a fiduciary, or $1,500 or more to a married person, is required to make a return on Forms 1096 and 1099 showing the amount of such payments and the name and address of each recipient. These forms may be obtained from any District Collector of Internal Revenue on request.

Salaries of office assistants and other employes coming under this provision must be reported, also office rent, unless paid to a corporation.

Such returns covering the calendar year 1941 must be forwarded to the Commissioner of Internal Revenue, Sorting Section, Washington, D. C., in time to be received not later than February 15, 1942.

CHANGES IN REVENUE ACT

The Revenue Act of 1941, enacted by the U.S. Congress last September, contains a number of important changes in the statutes governing income tax. The principal changes are:

1. The personal exemption of a married person or a head of a family has been reduced from $2,000 to $1,500.
2. The personal exemption of a single person has been reduced from $800 to $750.
3. Surtax rates have been substantially increased. They apply to the entire surtax net income. Under the law previously in effect, the first $4,000 of net income was not subject to surtax. Further, the 10 per cent of earned income credit permitted for normal tax purposes is not allowable for surtax purposes.
4. The separate 10 per cent defense tax is eliminated.

Credit for dependents remains at $400. The 4 per cent base tax rate remains unchanged. Deductions permitted for business or professional expenses are the same as heretofore.

FORMS TO BE USED

Physicians and other professional men are required to use Form 1040 in submitting returns, regardless of the amount of net income. The sole exception is a physician, not in private practice, receiving a salary, whose gross income is less than $3,000. In such cases, Form 1040 A may be used. This optional return, permitted under Supplement T of the 1941 Act, was designed primarily for the purpose of simplifying the preparation of returns and the determination of the tax in the case of individuals whose gross income is $3,000 or less and consists solely of salary or other compensation for services, and who have no deductions of any substantial amounts. The use of Form 1040 A would not be practicable for a physician, for in cases where there are substantial deductions, the tax will generally be lower if computed in the regular way.

PROCEDURE OUTLINED

Following is a detailed analysis of the procedure physicians should follow in filling out blanks for their 1941 income, and an example of how computations of the tax should be made:

Every physician whose gross income for 1941 was $750 or more, if single, and $1,500 or more, if married, must file an income tax return on or before March 16, 1942.

All groups, joint ventures and other incorporated organizations must file returns as partnerships or corporations. Such returns must list the names and addresses of the individuals who would be entitled to share in the net income if distributed and the amount of the distributive share of each individual. The members of such groups or corporations must report their distributive shares as their own income.

In order to expedite checking of returns, and eliminate the possibility of unnecessary correspondence or investigations, physicians are urged to fill out all schedules in their returns.

GROSS INCOME

Gross income includes gains, profits and income derived from professional services, business activities, salaries, wages, sales, dealing in, or exchange of real or personal property, rents or royalties, dividends and interest, bonuses received as compensation, money collected on old accounts charged off in previous years as "bad debts", and funds received from all other sources.

Taxable income includes accrued value of U.S. Savings Bonds. The taxpayer may elect to report as income the yearly increase in value of such bonds or report the total increase in value on the year that the bonds are disposed of or mature.

PERSONAL EXEMPTIONS

If married and living with wife, or the head of a family, for the entire year, an exemption of $1,500 is allowed; if single and not a head of a family, an exemption of $750 is permitted, as credit against net income for the purposes of the normal tax and the surtax.

Credit of $400 is permitted for each dependent under 18 years of age or each physically or mentally handicapped dependent regardless of age. The credit is not allowed in the case of a dependent minor over 18 years of age even if such minor is attending school.

The names and relationship of dependents for whom a credit is taken must be shown on Schedule D, page 2, of the return.

In case of a change during the calendar year of the status of the physician in so far as it affects the personal exemption or credit for dependents, the personal exemption and credit should be apportioned in accordance with the number of months after such a change. Authority for prescribing rules and regulations for such apportionment is given to the Commissioner of Internal Revenue.

A husband and wife living together shall receive but one personal exemption. The amount of such personal exemption is, as previously stated, $1,500. If such husband and wife make separate returns, the personal exemption may be taken by either or divided between them.

ITEMS NOT REPORTABLE AS INCOME

The following items **should not** be included in gross income tax since they are **exempt** to Federal income tax:

Amounts received under a life insurance contract paid by reason of the death of the insured; whether in a single sum or in installments (but if such amounts are held by the insurer under an agreement to pay interest thereon, the interest payments shall be included in gross income).

Amounts received (other than amounts paid by reason of the death of the insured and interest payments on such amounts and other than amounts received as annuities) under a life insurance or endowment contract, but if such amounts (when added to amounts received before the taxable year under such contract) exceed the aggregate premiums or consideration paid (whether or not paid during the taxable year) then the excess shall be included in gross income. Amounts received as an annuity under an annuity or endowment contract shall be included in gross income; except that there shall be excluded from gross income the excess of the amount received in the taxable year over an amount equal to 3 per cent of the aggregate premiums or consideration paid for such annuity (whether or not paid during such year), until the aggregate amount excluded from gross income equals the aggregate premiums or consideration paid for such annuity.

Gifts (not made as a consideration for service rendered) and money and property acquired by bequest, devise, or inheritance (but the income derived from such property is taxable and must be reported).

Interest upon (1) the obligations of a State, Territory, or any political subdivisions thereof, or the District of Columbia, or United States possessions; or (2) obligations of the United States or instrumentalities thereof if issued prior to March 1, 1941.

Amounts received through accident or health insurance or under workmen's compensation acts, as compensation for personal injuries or sickness plus the amount of any damages received, whether by suit or agreement, on account of such injuries or sickness.

Amounts received as earned income from sources without the United States (except amounts paid by the United States or any agency thereof) by an individual citizen of the United States who is a bona fide nonresident for more than six months during the taxable year. The taxpayer in such a case may not deduct from his gross income any amount properly allocable to or chargeable against the amount so excluded from his gross income.

DEDUCTIBLE ITEMS

In computing net income, the following items may be deducted by a physician from gross income:

Office Rental—If a physician pays rent to another person for office space, he may deduct such amount. If he rents a combined home and office, he may deduct that portion of the rent charged for the office. If he owns his own home and maintains an office in it, he **can not** claim deduction for office rent. However, he is entitled to claim depreciation on that portion of the property occupied as an office.

Automobile—The cost of repair and upkeep of an automobile, including gasoline and oil, used in professional visits may be deducted. That part of the salary paid to a chauffeur and attributable to time spent in driving his employer on professional calls, may be deducted. Sums spent for taxi hire, car fare, etc., while on professional calls, may be deducted.

Loss on an automobile used in professional business through depreciation may be deducted. The depreciation which should be deducted annually is figured by dividing the cost price of the machine by the number of years of its usefulness. If a physician has one automobile which is used exclusively in professional business, he may deduct the full depreciation each year. If the machine is used only partly in professional business the deductible depreciation should be computed on the basis of the amount of time the car is used for professional purposes. If a physician possesses two cars, each of which is used partly in professional business, the deductible depreciation on each car should be computed on the basis of the amount of time each car is used for professional purposes. In other words, if an automobile is used only partly for business purposes, depreciation may be deducted only on a proportionate part thereof, the amount of depreciation depending on the amount of time the machine is used in professional business.

A loss occasioned by damage to an automobile maintained either for business or pleasure, which is not due to the willful act or negligence of the taxpayer, is deductible loss in the computation of net income, provided the taxpayer has not been reimbursed for such loss by insurance.

It is suggested that physicians be prepared to substantiate claims for deductions from gross income for professional use of automobiles in case income tax officials should call on them for written records to show the mileage traveled by them in connection with professional practice, or to prove just what part of their automobile maintenance expense was a professional expense, and therefore deductible.

Professional Dues—Dues paid to professional associations to which, in the interest of his profession, the physician belongs, may be deducted. Expenses incurred in taking graduate courses have been held **not** to be deductible.

Traveling Expenses—Traveling expenses necessarily incurred by a physician on professional calls and in attending medical conventions for a professional purpose are deductible from gross income.

Salaries and Wages—Deductions are permitted for the salaries or wages of nurses, laboratory workers, technicians, assistants, stenographers or other clerical workers in a physician's office so long as their duties are connected with professional work; also for wages paid maids, janitors, etc., for services rendered in connection with professional practice.

Medicines, Supplies, etc.—Cost of medicines used in the office to treat patients, medicine dispensed, bandages, laboratory materials, chemicals, and other supplies "consumed in the using" and necessary to operate the office may be deducted.

Equipment, Furniture, Library, etc.—Cost of surgical instruments and laboratory appliances of more or less permanent value may not be deducted but a percentage of the purchase price may be deducted annually under a depreciation account. The same rule applies to office furniture and books purchased for the physician's office library. If improvement to offset obsolescence and wear and tear or injury has been made and deduction for the cost claimed elsewhere in the return, claim should not be made for depreciation.

General Office Expenses—The cost of telephone, telegrams, heat, light, water, etc., used in professional service is deductible. Physicians who keep current magazines and newspapers in their waiting rooms for the benefit of their patients, may deduct this item as a business expense. The cost of professional journals for the physician's own use is also a deductible item.

Debts—If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debt because he is then only reporting as gross income those accounts which have proved to be good. Bad accounts have not been reported and are therefore not deductible.

If books are kept on an "Accrual Basis" (where expense is actually incurred and payable even though not yet paid, or income earned although not yet collected) it is permissible to charge off all debts which have been definitely ascertained to be worthless during the fiscal year covered by the report.

The physician using this latter system must be careful to include in gross income bad debts which have been charged off in previous years but collected during the calendar year for which the return is filed.

Taxes and Licenses—All state and county taxes, except those assessed against local benefits of a kind tending to increase the value of the property assessed and those imposed upon the taxpayer upon his interest as shareholders of a corporation which are paid by the corporation without reimbursement from the taxpayer, are deductible.

Sales tax payments may be deducted. A reasonable allowance will be permitted in proportion to the physician's income. Should the claimed exemption appear too large, however, the burden of proof falls upon the taxpayer, and **he may be called upon to produce purchase receipts to substantiate his claim.** Sales tax coupons **are not** considered sufficient evidence.

The Ohio Gasoline Tax is deductible to the extent of three cents per gallon. If a physician has already deducted the cost of gasoline used in making professional calls as automobile expense, he can not of course make an additional deduction of three cents per gallon for gasoline so used. However, he may deduct that amount on gasoline purchased for other than professional use.

All license fees which the physician is required to pay are deductible, including the narcotic tax, automobile license tag fee, local occupational taxes, taxes on club dues, etc.

All Federal taxes except income, war-profit and excess-profit taxes are deductible, including Federal excise taxes collected direct from the consumer or purchaser.

SURTAX RATES

If the surtax net income is:	The surtax shall be:
Not over $2,000	6% of the surtax net income
Over $2,000 but not over $4,000	$120, plus 9% of excess over $2,000
Over $4,000 but not over $6,000	$300, plus 13% of excess over $4,000
Over $6,000 but not over $8,000	$560, plus 17% of excess over $6,000
Over $8,000 but not over $10,000	$900, plus 21% of excess over $8,000
Over $10,000 but not over $12,000	$1,320, plus 25% of excess over $10,000
Over $12,000 but not over $14,000	$1,820, plus 29% of excess over $12,000
Over $14,000 but not over $16,000	$2,400, plus 32% of excess over $14,000
Over $16,000 but not over $18,000	$3,040, plus 35% of excess over $16,000
Over $18,000 but not over $20,000	$3,740, plus 38% of excess over $18,000
Over $20,000 but not over $22,000	$4,500, plus 41% of excess over $20,000
Over $22,000 but not over $26,000	$5,320, plus 44% of excess over $22,000
Over $26,000 but not over $32,000	$7,080, plus 47% of excess over $26,000
Over $32,000 but not over $38,000	$9,900, plus 50% of excess over $32,000
Over $38,000 but not over $44,000	$12,900, plus 53% of excess over $38,000
Over $44,000 but not over $50,000	$16,080, plus 55% of excess over $44,000
Over $50,000 but not over $60,000	$19,380, plus 57% of excess over $50,000
Over $60,000 but not over $70,000	$25,080, plus 59% of excess over $60,000
Over $70,000 but not over $80,000	$30,980, plus 61% of excess over $70,000
Over $80,000 but not over $90,000	$37,080, plus 63% of excess over $80,000
Over $90,000 but not over $100,000	$43,380, plus 64% of excess over $90,000
Over $100,000 but not over $150,000	$49,780, plus 65% of excess over $100,000
Over $150,000 but not over $200,000	$82,280, plus 66% of excess over $150,000
Over $200,000 but not over $250,000	$115,280, plus 67% of excess over $200,000
Over $250,000 but not over $300,000	$148,780, plus 69% of excess over $250,000
Over $300,000 but not over $400,000	$183,280, plus 71% of excess over $300,000
Over $400,000 but not over $500,000	$254,280, plus 72% of excess over $400,000
Over $500,000 but not over $750,000	$326,280, plus 73% of excess over $500,000
Over $750,000 but not over $1,000,000	$508,780, plus 74% of excess over $750,000
Over $1,000,000 but not over $2,000,000	$693,780, plus 75% of excess over $1,000,000
Over $2,000,000 but not over $5,000,000	$1,443,780, plus 76% of excess over $2,000,000
Over $5,000,000	$3,723,780, plus 77% of excess over $5,000,000

Federal Old Age Benefits and Unemployment Compensation taxes paid by employers under the Social Security Act are proper deductions in making income tax returns. Such taxes are deductible on returns for the taxable year in which they are accrued or paid, depending upon the method of accounting employed by the taxpayer. However, Federal Old Age Benefits payroll deductions from employees' wages are not proper deductions from individual Federal income tax returns. The reason for this latter distinction is that the individual employee at a future date will have returned to him in the form of pensions the money which is deducted from his current wages.

Interest—Amounts paid out as interest upon indebtedness (except interest paid to carry non-taxable securities) are deductible.

Losses by Fire and Theft—Loss of and damage to a physician's equipment by fire, theft, or other cause, not compensable by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent to which it has not been made good by repair and the cost of the repair is claimed as a deduction.

Insurance Premiums—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries to a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Premiums paid on life insurance are not deductible.

Legal Expenses—Expense incurred in the defense of a suit for alleged malpractice is deductible as business expense. However, expense incurred in the defense of a criminal action is **not** deductible.

Contributions, Gifts, etc.—It is permissible to deduct from gross income contributions made to charitable, religious, educational and scientific organizations, no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation, to an aggregate amount not to exceed 15 per cent of the net income, exclusive of such contributions.

EARNED INCOME CREDIT

For purposes of the normal tax, an earned income credit is allowed by means of a deduction from net income of an amount equal to 10 per cent of the earned net income. If the taxpayer's net income is not more than $3,000, his entire net income is considered to be earned net income. If his net income is more than $3,000, his earned net income shall not be considered less than $3,000 but in no case shall the earned net income be considered more than $14,000.

NORMAL TAX RATE

The normal tax rate on 1941 income is 4 per cent on all net income in excess of exemptions and credits.

SURTAX RATES

In addition to the normal tax, a surtax is levied on surtax net income, that is, net income less the personal exemption and the credit for dependents, as shown in accompanying box.

HOW COMPUTATIONS ARE MADE

An example of how computations are made is given here for the information of physicians. The figures used in the following tabulations may appear out of proportion to the actual income of the average physician during 1941. However, they are used merely to illustrate how the normal and surtax rates should be applied.

The following computation is based on a hypothetical case of a married physician, with no dependents, who had a gross income of $15,000 during 1941:

Gross Income

Income from professional services		$12,000.00
Income from other sources:		
Rent from apartment	$1,500.00	
Taxable interest, dividends	1,500.00	
	$3,000.00	3,000.00
Gross income		$15,000.00

Deductions

Depreciation of office furniture, etc.	$ 400.00	
Salaries and wages for office help	1,500.00	
Telephone, heat, light, etc.	400.00	
Automobile cost and depreciation	800.00	
Drugs, bandages, medicines, etc.	2,500.00	
Traveling expenses to medical meetings	300.00	
Office rent	800.00	
Dues, liability insurance	200.00	
Miscellaneous expense	100.00	
Business expenses	$7,000.00	
State sales tax	75.00	
Old Age benefit tax	15.00	
Gasoline tax	10.00	
Taxes on apartment	400.00	
Interest on mortgage, overhead, etc.	300.00	
Total deductible expenses		$ 7,800.00
Net income (gross income, less deductible expenses)		$ 7,200.00

Computations

Surtax net income (net income less personal exemption $7,200.00 less $1,500.00)	$ 5,700.00
Earned net income (earned income less business expenses, $12,000.00 less $7,000.00)	$ 5,000.00
Earned income credit (10% of earned net income, $5,000.00)	$ 500.00
Income subject to normal tax (net income less personal exemptions and earned income credit; $7,200.00 less $1,500.00 and $500.00)	$ 5,200.00
Normal tax (4% of $5,200.00)	$ 208.00
Income subject to surtax	$ 5,700.00
Surtax ($300.00 plus $221.00—13% of $1,700.00)	$ 521.00
Total tax (normal tax plus surtax)	$ 729.00

If the above return had been computed on the basis of the personal exemptions and tax rates in effect a year ago, the total tax would have been $259.60.

EXTENSION OF TIME FOR FILING RETURNS

Extensions of time for filing income tax returns will be granted only in extraordinary cases. Application for extensions of time should be addressed to the collector for the district in which the physician files his return, and must contain a full recital of the causes for the delay.

Except in the cases of taxpayers who are abroad, no extension for filing income tax returns may be granted for more than six months.

* * *

OHIO PERSONAL PROPERTY TAX

RETURNS under the Ohio Personal Property Tax Law must be made between February 15 and March 31, annually.

All tangible and intangible personal property (not real property) in possession of a physician on January 1, 1942, which is subject to taxation under the Ohio law, should be listed on the return which should be filed with the county auditor between those dates. Form 910 is used by individuals and partnerships, and Form 930 by corporations.

Such returns should be made in duplicate. The so-called intangible tax statutes are intricate and complicated so each physician having taxable personal property for listing should obtain competent advice in case of doubt as to the meaning of any of the provisions of the law.

One of the complicated provisions of the tax law is that involving the listing of credits which are taxable at 3 mills on the dollar and which involves the computation of accounts receivable.

As defined in Section 5327 of the law, credits "mean the excess of the sum of all current accounts receivable and prepaid items used in business when added together estimating every such account and item at its true value in money, over and above the sum of current accounts payable of the business, other than taxes and assessments.

The same section states that "current accounts include items receivable or payable on demand or within one year from the date of inception, however evidenced".

As the first step in making his return under the section relating to credits, a physician should estimate by his best judgment the **Actual Value** of his current accounts receivable—the amount that probably can be collected.

In listing his current accounts receivable, the physician should note after each account what he considers the value of the account. If he believes the account can be collected in full, it should be listed at its full face value. Otherwise, it should be listed at 75%, 50%, 25% 10%, etc., of its full face value, or of "no value" in case that is considered the "actual value" of the account. The total of these estimates is the total to be entered as "current accounts receivable" and used in computing credits.

This procedure permits the physician to charge off bad debts since in his 1941 return he would be permitted to return as of "no value" accounts receivable which he listed in 1940 but no part of which was collected during the past year. Moreover, it permits a physician to depreciate the actual value of accounts returned in 1940 but which have decreased in actual value during the past year.

OLD AGE BENEFITS TAX

The Old Age Benefits Tax is payable by every physician who employs one or more persons in his office. It amounts to one per cent on the first $3,000 of each employee's wage paid by the employer and a like amount deducted from the wages of each employee. The tax return and informational return, combined in one report, Form SS-1-A, is to be filed **quarterly**. The tax must be paid and the return filed prior to April 30, for the months of January, February and March, 1942, in the office of the District Collector of Internal Revenue.

UNEMPLOYMENT COMPENSATION TAX

Under the Ohio Unemployment Compensation Law, physicians who employ three or more persons must file an "Employer's Contribution, Form UCO-2-e, Report," **quarterly** with the Ohio Bureau of Unemployment Compensation, Columbus. Report for the period of October 1 to December 31, 1941, was due January 31. The tax, which must accompany the return, amounts to 2.7 per cent of the quarterly payroll.

Employers of eight or more persons, under the Federal Unemployment Compensation Law, must have filed with the District Collector of Internal Revenue on Form No. 940, prior to January 31, 1942, a report of wages paid during 1941. The tax is 3 per cent, less a credit of the amount paid to the Ohio Bureau of Unemployment Compensation. In other words, 90 per cent of the Unemployment Compensation Tax of employers of eight or more persons will be paid to the State and 10 per cent to the Federal Government.

OHIO USE TAX

The Ohio Use Tax Law, passed in 1936 supplementing the Retail Sales Tax Law, imposes a tax on the same basis as the sales tax, on purchases made outside the state. Its purpose is to protect Ohio merchants from discrimination. Many out-of-state firms have made arrangements with the State Tax Commission to add the amount of the tax to invoices covering purchases by Ohio consumers, collecting the tax and paying it directly to the Commission. **However, if a physician purchases drugs or supplies from an out-of-state firm which has not made such an arrangement with the Tax Commission, he is required to report such purchases to the Tax Commission and pay the tax. Returns must be filed with the Commission by April 15, for purchases during the period January 1 to March 31, 1942, and quarterly thereafter.**

Do You Know - - -

Akron hospital authorities are formulating plans to raise $488,000 to match a similar grant from the Federal Government for a construction program which would increase the city's hospital capacity by 250 beds.

* * *

Ohio's $2,555,000 welfare institutional building program has been postponed indefinitely because the Office of Production Management has denied the state priorities on necessary materials. Priorities have been granted for repairs and replacements estimated to cost $240,600 at nine state institutions. These projects are principally power plant repairs.

* * *

Dr. Sidney McCurdy, formerly supervisor of the Medical Section, State Industrial Commission, and now residing in East St. Johnsbury, Vermont, is Medical Director of Civilian Defense for North Eastern Vermont. During World War I, Dr. McCurdy served 16 months in France as a Captain in the Medical Corps of the U. S. Army.

* * *

The Borden Company has made an award of $1,000 to assist in research work being done by Irvington House, Irvington-on-Hudson, N. Y., in the study and treatment of rheumatic fever.

* * *

National Social Hygiene Day, sponsored by the American Social Hygiene Association and affiliated local organizations, will be observed on February 4.

* * *

Redemption of sales tax stamps netted Ohio hospitals, churches, schools, fraternal organizations, civic groups and other similar organizations $1,173,057 in 1941, which was $329,119 more than in 1940. Under existing statutes, stamps can be redeemed at three per cent of their face value in amounts of $100 or more. Total yield of the sales tax in 1941 was $65,246,532, which was $14,737,866 more than in 1940.

* * *

Appointment of Dr. A. W. Thomas to the position of Chief of the Subdivision of Child Hygiene in the Cleveland Division of Health has been announced by Dr. H. J. Knapp, Cleveland Health Commissioner. For the last several years Dr. Thomas has been on the staff of the Ohio Department of Health, serving as Chief of the Division of Child Hygiene. His new appointment becomes effective Feb. 1. Dr. Thomas succeeds Dr. Rudolph J. Ochsner, who retired after 30 years service in the department.

There were 286,010 claims filed with the State Industrial Commission during 1941, an increase of 34.9 per cent over 1940, when 212,033 claims were filed. The largest number of claims previously filed in one year was in 1929 when the total was 255,094.

* * *

Dr. James M. Ruegsegger, assistant professor of medicine, University of Cincinnati College of Medicine, and secretary of the Section on Medicine, Ohio State Medical Association, is now associated with Lederle Laboratories, Inc., Pearl River, New York.

* * *

Four physicians and eight nurses from Mexico are engaged in graduate study at the Western Reserve University School of Medicine.

* * *

Dr. Alexander Ashley Weech, associate professor of pediatrics, Columbia University College of Physicians and Surgeons, New York, has been appointed professor of pediatrics at the University of Cincinnati College of Medicine, to succeed the late Dr. A. Graeme Mitchell. A graduate of Johns Hopkins University School of Medicine in 1921, Dr. Weech is a diplomate of the American Board of Pediatrics and a member of the American Pediatric Society and the American Academy of Pediatrics.

* * *

According to statistics recently issued by the Institute of Life Insurance, the average U. S. citizen in 1941 carried approximately $925 in life insurance, which is an all-time high.

* * *

In addition to other wartime revisions of its curriculum, Oberlin College has added a course in Laboratory Technique for Medical Work to its list of science courses. Students electing it for either four or five hours' credit will receive instruction in various types of blood analysis, histological technique, bacteriology and parasitology, and some work in radiology. Dr. R. H. Bradshaw, college physician, is one of the instructors.

* * *

Dr. Edward J. McCormick, President-Elect of the Ohio State Medical Association, has been elected a member of the board of trustees of the Toledo Chamber of Commerce.

* * *

Dr. Jonathan Forman, Editor of *The Ohio State Medical Journal* and Charles S. Nelson, Executive Secretary of the Ohio State Medical Association, discussed "Methods in Securing an Enabling Act for Prepaid Medical Care", at the annual Secretaries' Conference of the Indiana State Medical Association, January 25, at Indianapolis.

In Memoriam

Charles Henry Ball, M.D., Chillicothe; Baltimore University School of Medicine, 1900; aged 70; died December 30, at the U. S. Veterans' Hospital, Chillicothe, where he had been a patient for nearly a year. A former resident of Tiffin, Dr. Ball at one time practiced in Milan. He was a lieutenant in the Medical Corps of the U. S. Army during World War I.

Michael Ryan Barrett, M.D., Cincinnati; University of Cincinnati College of Medicine, 1935; aged 35; member of the Ohio State Medical Association and the American Medical Association; died December 30. Dr. Barrett had practiced in Cincinnati for five years. He was associate medical director for the Western and Southern Life Insurance Company. Widely known for his athletic accomplishments at the University of Cincinnati during undergraduate days, Dr. Barrett was medical examiner for the Cincinnati Boxing and Wrestling Commission. He was a member of the Cincinnati Club, Cuvier Press Club, Hamilton County Republican Club and the C Club of the University of Cincinnati. Surviving are his widow, his parents, and two brothers, one of whom is Dr. Charles M. Barrett, Cincinnati.

Stanley Ross Burlage, M.D., Bedford; Western Reserve University School of Medicine, 1927; aged 51; member of the Ohio State Medical Association and the American Medical Association; died December 30. Dr. Burlage had practiced in Bedford and Cuyahoga County for 12 years. His widow and a son survive.

August C. Busch, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1894; aged 71; died December 28. Dr. Busch practiced in Hyde Park, Cincinnati, for 30 years. He had been chairman of Hamilton County Selective Service Board No. 5 since October, 1940, and from November, 1938 to February, 1939, was manager of the Hamilton County Division, Aid for the Aged. Dr. Busch was a member of the Catholic Church and the Holy Name Society. Surviving are his widow, a son—Dr. Anthony B. Busch, Dodge City, Kansas, a sister and a brother.

Wade Kisinger Chamberlin, M.D., Tiffin; Cleveland Medical College, 1895; aged 72; member of the Ohio State Medical Association and the American Medical Association; died January 6. A native of Rochester, Dr. Chamberlin practiced in Tiffin for 46 years. He was a member of the Elks Lodge and the Junior Order, United American Mechanics. During World War I, Dr. Chamberlin was a captain in the Medical Corps of the U. S. Army. Surviving are his widow and a step-son, Dr. Richard E. Allen, an officer in the Medical Corps of the U. S. Army, stationed at Ft. Ethan Allen, Vt.

Clement Nelson Clark, M.D., Canton; University of Wooster, Medical Department, 1904; aged 68; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 31. After practicing in Mt. Eaton for seven years, Dr. Clark opened an office in Canton in 1904. He was president of the Stark County Medical Society in 1939. Surviving are his widow; two sons, one of whom is Dr. Dwight E. Clark, Chicago; two sisters and two brothers.

Daniel Beckel Conklin, M.D., Dayton; Columbia University College of Physicians and Surgeons, New York, 1902; aged 65; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 13. Dr. Conklin was a past-president of the Dayton Board of Health, retaining that post for several years after his appointment at the time of the disastrous 1913 flood, when he directed relief and reconstruction work. A native Daytonian, Dr. Conklin began his practice with his father, the late Dr. William Judkins Conklin, a former president of the Ohio State Medical Association. He had practiced in Dayton for over 40 years. A son and a daughter survive.

Joseph Wilson Darrah, M.D., Martins Ferry; Western Reserve University School of Medicine, Cleveland, 1882; aged 84; died January 3. Dr. Darrah retired 10 years ago, after having been in practice in Martins Ferry for 50 years. Active in community affairs, he organized the local volunteer fire department, and was a life-long member of the Presbyterian Church and various Masonic Orders. His widow, a son, a daughter and a sister survive.

Frank Flanneghan Davis, M.D., East Liverpool; Cleveland University of Medicine and Surgery, 1896; aged 67; died December 19. Dr. Davis practiced in East Liverpool for 45 years. During World War I he served in France as a lieutenant in the Medical Corps of the U. S. Army. Dr. Davis was a member of the American Legion. Surviving are his widow, a son, a daughter and two sisters.

Glenn Kennedy Dennis, M. D., Wilmington; Miami Medical College, Cincinnati, 1904; aged 63; member of the Ohio State Medical Association and the American Medical Association; died December 18. Dr. Dennis practiced in Covington, Ky., for five years, and in Bowersville for eight years. He located in Wilmington in 1919, following service in World War I as a lieutenant in the Medical Corps of the U. S. Army. Dr. Dennis was a member of the Masonic Order and the Elks Lodge.

Frank M. Gallagher, M.D., Columbus; College of Physicians and Surgeons, Baltimore, 1901; aged 71; member of the Ohio State Medical Association and the American Medical Association; died January 16. After practicing one year in West Virginia, Dr. Gallagher opened an office in Columbus, where he was located for 40 years. He was a member of the Board of Trustees of the First Methodist Church. Surviving are his widow, two sons—Dr. Francis W. Gallagher, Columbus, and Dr. Clarence M. Gallagher, Cincinnati, and a daughter.

William Edward Gault, M.D., Portsmouth; Pulte Medical College, Cincinnati, 1897; aged 74; member of the Ohio State Medical Association and the American Medical Association; died January 5. Dr. Gault practiced for a short time in Maysville, Ky., locating in Portsmouth in 1898. Widely known throughout Scioto County, Dr. Gault was a member of the Masonic Lodge and the Presbyterian Church. His widow, and a son, Dr. Ross Moore Gault, Portsmouth, survive.

Thomas Dillon Hollingsworth, M.D., Akron; Eclectic Medical College, Cincinnati, 1893; aged 74; member of the Ohio State Medical Association and the American Medical Association; died January 5. Dr. Hollingsworth practiced in Akron for 34 years. Active in medical organizations, he was treasurer of the Summit County Medical Society 1918-1921, and a former president of the Ohio State Eclectic Medical Society and the National Eclectic Medical Association. Dr. Hollingsworth was a former member of the staff of Peoples Hospital. His widow and three daughters survive.

J. Barrett Kleckner, M.D., Lynchburg; National University of Arts and Sciences, Medical Dept., St. Louis, 1883; aged 90; died December 19. Dr. Kleckner practiced in Lynchburg for nearly 60 years. He was a member of the Masonic Lodge, Knights of Pythias and the Methodist Church. A daughter, a son and a sister survive.

Frederick A. Korell, M.D., Columbus; Starling Medical College, 1892; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died December 19. Dr. Korell retired to live in Columbus in 1918, after having practiced in Belmont County for 27 years. He was recently given belated national recognition as the discoverer of the cause of glandular fever. Dr. Korell was a member of the Masonic Order. A son and a daughter survive.

Bertrum Brant McElhany, M.D., Youngstown; Western Reserve University School of Medicine, Cleveland, 1900; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 13. Dr. McElhany practiced in Youngstown for 40 years. He was active in the Boy Scouts and Christ Mission Settlement. His widow and a son survive.

William K. Ruble, M.D., Wilmington; Eclectic Medical College, Cincinnati, 1890; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died January 19. Dr. Ruble practiced medicine in Martinsville for 27 years, and then moved to Wilmington. He was treasurer of Clinton County for four years, and health commissioner for 18 years. Dr. Ruble was a member of the Masons, Modern Woodmen, Odd Fellows, Elks, Knights of Pythias and Jr. O.U.A.M. fraternal orders. His widow survives.

Wilson R. Scott, M.D., Dayton; College of Medicine and Surgery, Ph.M., Chicago, 1898; aged 76; died December 7. Dr. Scott practiced in Dayton for over 40 years. His widow, a daughter and a son survive.

DeWitt C. Smith, M.D., Dunkirk; Miami Medical College, Cincinnati, 1874; aged 94; died December 5. Dr. Smith practiced in Dunkirk and Kenton for 50 years. He was a charter member of the Masonic Lodge in Dunkirk and a member of the Disciples Church. Two daughters, a son and a sister survive.

Wesley Franklin Stoneburner, M.D., Akron; Starling Medical College, Columbus, 1898; aged 69; former member of the Ohio State Medical Association and the American Medical Association; died December 12. Dr. Stoneburner became an associate retired member of the Summit County Medical Society in 1940, after having been a member since 1915. Prior to his retirement, Dr. Stoneburner was a member of the medical staff of the Goodyear Tire and Rubber Company. He had previously practiced in Portersville. His widow, a son, and a brother survive.

Bertie Virgil Swisher, M.D., Radcliff; Cincinnati College of Medicine and Surgery, 1901; aged 68; died December 14. A native of Gallia County, Dr. Swisher first practiced at Northrup, and for a short time at Chauncey. He had practiced in Oreton and Radcliff, Vinton County for 37 years. Dr. Swisher was a Mason.

Charles A. Teeters, M.D., Washington C. H.; College of Physicians and Surgeons, Baltimore, Md., 1888; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died December 27. Dr. Teeters retired several years ago, after having practiced in Jeffersonville and Washington C. H. for over 40 years. He was a member of the Masonic Lodge. Four daughters survive.

Edwin S. Wiggers, M.D., Cincinnati; Pulte Medical College, Cincinnati, 1895; aged 69; died January 11. Dr. Wiggers retired from active practice about ten years ago. His brother, Dr. H. H. Wiggers, Cincinnati, survives.

George Ramson Wilkins, M.D., Cleveland; Cleveland-Pulte Medical College, 1899; aged 72; died December 13. One of the founders of Grace Hospital, Cleveland, Dr. Wilkins had been physician for the Eliza Jennings Home for the Aged for 40 years. He was a captain in the Medical Corps of the U. S. Army in France during World War I. Dr. Wilkins was a member of the Masonic Order and the Veterans of Foreign Wars. Surviving are his widow, a daughter, a son, his mother, a brother and two sisters.

William O. Ziemer, M.D., Cleveland; Western Reserve University School of Medicine, 1904; aged 60; died December 3. Dr. Ziemer practiced on the Cleveland West Side for 35 years. He was a member of the staff of Lutheran Hospital. Dr. Ziemer was a member of the Masonic Order and the Knights of Pythias. His widow and a daughter survive.

Licenses Are Granted To 34 Medical School Graduates; Board Elects Officers for Ensuing Year

Licenses to practice medicine and surgery in Ohio were granted 23 medical school graduates, who passed the December examinations, at a meeting of the State Medical Board, January 6, at Columbus. Similar licenses were issued by the Board to 11 physicians, through reciprocity with other states.

The Board also granted certificates to 11 osteopaths, 2 chiropractors, 15 mechano-therapists, 24 masseurs, 3 cosmetic therapists and 2 chiropodists.

The following officers were elected by the Board for the ensuing year: Dr. C. W. Waggoner, Toledo, president; Dr. Thos. H. George, Cleveland, vice-president; Dr. J. H. J. Upham, Columbus, treasurer. Others members of the Board are: Dr. Roy C. Hunter, Wapakoneta; Dr. Ralph B. Taylor, Columbus; Dr. Claude V. Davis, Pennsville; and Dr. William M. Hoyt, Hillsboro. The Board reappointed Dr. H. M. Platter, secretary, and Professor S. E. Razor, entrance examiner.

The highest grade in the medical examinations was made by Dr. J. J. Woodworth, Jr., Andover, a graduate of Hahnemann Medical College, Philadelphia, whose grade was 88.9 per cent. Two other graduates of Hahnemann, Dr. A. E. Lenhert and Dr. K. K. Keown, Cleveland, were second and third, with grades of 88.3 and 86.7 per cent, respectively.

Those granted medical and surgical licenses following examination were: Edmond J. Booth, Columbus, and Edward Kelemen, Youngstown, Ohio State University College of Medicine; John W. Devanney, Jr., and John Dorger, Cincinnati, University of Cincinnati College of Medicine; Abraham Sophian, Jr., Cleveland, Cornell University Medical College; John J. DeJak and Augustine J. Raitano, Cleveland, Creighton University School of Medicine; Charles C. Althoff, Arthur J. Auringer, Kenneth K. Keown, Amos E. Lenhert, Lewis A. Steinhilber, and Charles S. Yost, Cleveland, Emerson B. Beery, Lima, James R. Hart, Cincinnati, William C. Piver, East Cleveland, and Jess J. Woodworth Jr., Andover, Hahnemann Medical College; Heber W. Johnson, Jackson, Harvard University Medical School; John R. Close, Cleveland, and Donald M. Ruch, Canton, University of Rochester School of Medicine; Mary J. Hamilton, University of Arkansas School of Medicine; Walter Wisbrun, Cleveland, Friedrich Wilhelm University; Joseph Friedberger, Cleveland, University of Heidelberg.

Licenses to practice medicine and surgery in Ohio, through reciprocity with other states were granted to the following physicians: Joseph S. Lichty, Shaker Heights, Philip F. Partington, Cleveland, and David R. Weir, Cleveland Heights, Harvard University Medical School; Alfred L. Piser, Dayton, and Edward E. Schumacher, Cleveland, University of Illinois College of Medicine; Frederick T. Merchant, Marion, and Susan P. Souther, Columbus, Johns Hopkins University School of Medicine; Sam H. Black, Akron, University of Louisville School of Medicine; David M. Katchka, Slyvania, University of Michigan Medical School; Raymond Sorenson, Dayton, Northwestern University Medical School; Nettie Florence Keller, Worthington, American Medical Missionary College.

Coming Meetings

Ohio State Medical Association, Columbus, April 28-30.

American Medical Association, Atlantic City, June 8-12.

American College of Physicians, St. Paul, April 20-24.

American Congress on Obstetrics and Gynecology, St. Louis, April 6-10.

American Association of Industrial Physicians and the American Industrial Hygiene Association, Cincinnati, April 13-17.

American Federation for Clinical Research, Minneapolis, April 20-21.

Annual Congress on Medical Education and Licensure, Chicago, Feb. 16-17.

National Conference on Medical Service, Chicago, Feb. 15.

American Orthopsychiatric Association, Detroit, Feb. 19-21.

Central Surgical Association, Chicago, Feb. 27-28.

Conference on Medical Service, February 15 In Chicago

All interested Ohio physicians are cordially invited to attend the Sixteenth Annual Meeting of the National Conference on Medical Service (formerly the Northwest Regional Conference), which will be held at the Palmer House, Chicago, Sunday, February 15, beginning at 9:00 A.M. Topics pertaining to medical preparedness will be discussed.

Further information concerning the meeting can be obtained by writing the president, Dr. Harold M. Camp, Monmouth, Ill., or the secretary, Dr. J. D. McCarthy, Omaha, Nebraska.

Dr. Gordon, Akron, Named State Venereal Disease Control Officer

Dr. Harold J. Gordon, Akron, has been appointed venereal disease control officer of the State Department of Health. A graduate of Western Reserve University School of Medicine in 1916, Dr. Gordon for several years was in charge of the venereal disease program of the Akron Health Department. He has been an active member of the Summit County Medical Society, at the time of his appointment to the State Department of Health being editor of the Society's Bulletin and chairman of the committee on medical preparedness. For several years Dr. Gordon headed the society's committee on public education. His record in World War I was unique in that he entered the Medical Corps of the U. S. Army as a private in 1916, served overseas as commander of the 148th ambulance company and was honorably discharged as a major in 1919. He was awarded the distinguished service cross and silver star decoration.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Lua Moyer, Harrod, and Dr. R. P. Epstein, Elida; Miss Jeanne Maxine Vance, DeLand, Fla., and Dr. J. C. Frell, Warren; Miss Maxine Phyllis Morral, Morral, and Dr. Donald W. Jones, Cincinnati; Miss Olga Frances Kolibash, and Dr. V. H. Kemper, Troy; Miss Harriet Titus and Dr. William Pfaadt, Columbus; Miss Kathryn A. Fischer and Dr. John E. Petcoff, Toledo; Miss Emily Rice, Brighton, Mass., and Dr. James I. Kendrick, Cleveland.

Cincinnati—Dr. Philip E. Piker, assistant professor of clinical psychiatry, University of Cincinnati College of Medicine, spoke on "Different Levels of Maturity", the first of series of six lectures on "The Role of Maturity in a Changing World", being presented by the Woman's City Club.

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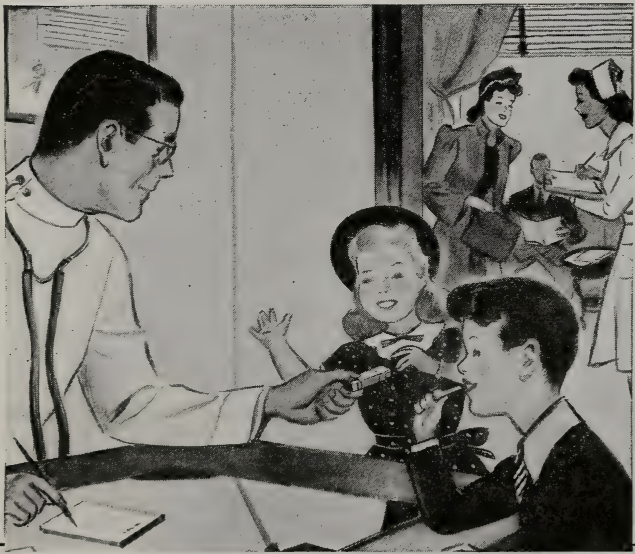

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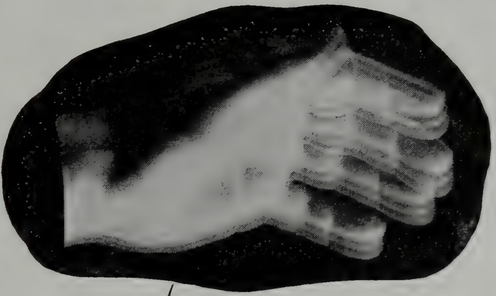

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With this combined therapy, drowsiness, muscular rigidity and tremor, lowered mood, salivation and oculogyric crises can often be controlled or eliminated.

NORMAL DOSAGE: 20 to 40 mg. daily. One-half of the dose at breakfast and the other half at noon. In exceptional cases, larger doses may be necessary.

Benzedrine Sulfate should be used with caution in hypertensive cases and should not be used in coronary disease and other cardiac conditions in which vasoconstrictors are contraindicated. Atropine, stramonium and scopolamine enhance its pressor effect.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

Officers of the Adams County Medical Society for 1942 are: Dr. Hazel L. Sproull, West Union, president; Dr. R. L. Lawwill, Seaman, vice-president; Dr. O. T. Sproull, West Union, secretary-treasurer; Dr. Sam C. Clark, Cherry Fork, chairman, legislative committee and committee on medical preparedness; Dr. S. J. Ellison, West Union, delegate; Dr. R. B Ellison, Peebles, alternate.—O. T. Sproull, M.D., secretary.

BUTLER

At a meeting of the Butler County Medical Society, December 19, at Mercy Hospital, Hamilton, the following officers were elected for the ensuing year: Dr. F. W. Brosius, Middletown, president; Dr. E. T. Storer, Middletown, vice-president; Dr. Mable E. Gardner, Middletown, secretary-treasurer; Dr. D. F. Gerber, Middletown, chairman, legislative committee; Dr. Harry M. Lowell, Hamilton, chairman, committee on medical preparedness; Dr. Charles T. Atkinson, Middletown, delegate; Dr. Lowell, alternate.

The tuberculosis situation in the county was discussed by Dr. G. N. Christiansen, Cincinnati. —Mabel E. Gardner, M.D., secretary.

CLINTON

The entire meeting of the Clinton County Medical Society, January 6, at the General Denver Hotel, Wilmington, was devoted to a discussion of medical preparedness problems. Dr. Robert Conard outlined the steps necessary to carry on an adequate program. Dr. R. W. DeCrow explained the duties and personnel of the local medical-health committee on Civilian Defense, and concentration points for equipment and supplies were established.—J. E. Rose, M.D., secretary.

HIGHLAND

Dr. C. J. DeLor and Dr. J. W. Means, Columbus, spoke on "The Medical and Surgical Aspects of Gall Bladder Disease", at a meeting of the Highland County Medical Society, January 7, at the Hotel Parker, Hillsboro.—W. B. Roads, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during January:

January 6—Under the joint auspices of the Cancer Control Council and the Academy of Medicine. "Advances in Radio Therapy in Cancer", Dr. Max Cutler, director, Chicago Tumor Institute, Chicago, Ill.

January 20—"Common Urologic Conditions in Children", Dr. Meredith F. Campbell, professor of urology, New York University College of Medicine.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CHAMPAIGN

New officers of the Champaign County Medical Society are: Dr. Robert V. Anderson, North Lewisburg, president; Dr. Joseph A. Fergus, St. Paris, president-elect; Dr. L. Ansel Woodburn, Urbana, secretary-treasurer; Dr. D. C. Houser, Urbana, chairman, legislative committee; Dr. Mark C. Houston, Urbana, chairman, medical preparedness committee; Dr. Houser, delegate; Dr. E. R. Earle, Urbana, alternate.—Ansel Woodburn, M.D., secretary.

CLARK

Dr. R. M. Turner spoke on "The Diagnosis and Treatment of Varicose Veins", at a meeting of the Clark County Medical Society, November 27, at the Hotel Shawnee, Springfield.—News clipping.

The society has elected the following Springfield physicians officers for 1942: Dr. L. H. Mendelson, president; Dr. W. D. Beasley, vice-president; Dr. C. W. Munz, secretary; Dr. F. P. Anzinger, treasurer; Dr. R. R. Richison, chairman, legislative commttee; Dr J. A. Link, chairman, committee on medical preparedness; Dr. G. M. Lane, delegate.—G. M. Lane, M.D., retiring secretary.

DARKE

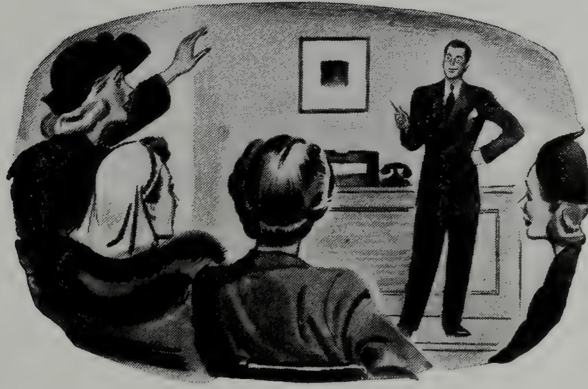
Officers of the Darke County Medical Society for 1942 are: Dr L. N. Shroder, Greenville, president; Dr. Gilbert Sayle, Greenville, vice-president; Dr. W. D. Bishop, Greenville, secretary-treasurer; Dr. A. F. Sarver, Greenville, chairman, legislative committee; Dr. C. J. Mills, Greenville, chairman, committee on medical preparedness; Dr. C. I. Stephen, Ansonia, delegate; Dr. P. G. Lenhert, Arcanum, alternate.—W. D. Bishop, M.D., secretary.

MIAMI-SHELBY

The annual joint meeting of the Miami and Shelby County Medical Societies was held at the Favorite Hotel, Piqua, January 8. The scientific program consisted of an address on "The Recognition and Management of Acute Injuries to the Chest", by Dr. George M. Curtis, professor of surgery, Ohio State University College of Medicine.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Members of the Montgomery County Medical Society were guests of the Wendt-Bristol Com-



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(1) 1811. The Art of Preserving All Kinds of Animal and Vegetable Substances for Several Years, M. Appert, Black, Perry and Kingsbury, London.
1938. Food Research 3, 13.
1938. Ibid. 3, 91
1939. Canned Food Reference Manual, American Can Company, New York
1941. Ind. Eng. Chem. 33, 292

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pany, Columbus, at a complimentary dinner, January 2, at the Van Cleve Hotel, Dayton. A short business meeting was followed by a presentation of the General Motors motion picture of the Great Silk Route by Dr. W. M. Simpson.

The following Dayton physicians are officers of the society for 1942: Dr. E. McCall Smith, president; Dr. B. F. Suffron, first vice-president; Dr. H. L. Brumbaugh, second vice-president; Dr. R. F. Corwin, secretary; Dr. H. F. Koppe, treasurer; Dr. A. T. Bowers, chairman, legislative committee; Dr. W. E. Prugh, chairman, committee on medical preparedness; Dr. C. J. Derby, Dr. H. V. Dutrow, Dr. A. W. Carley and Dr. R. S. Binkley, delegates; Dr. T. K. Kirk, Dr. R. D. Dooley, Dr. E. McCall Smith and Dr. M. Oosting, alternates.

SHELBY

Officers of the Shelby County Medical Society for 1942 are: Dr. R. L. Wiessinger, Sidney, president; Dr. J. W. Tirey, Anna, vice-president; Dr. Harry Wain, Sidney, secretary-treasurer; Dr. L. C. Pepper, Sidney, chairman, legislative committee; Dr. V. W. LeMaster, Sidney, chairman, committee on medical preparedness; Dr. H. E. Crim, Sidney, delegate; Dr. A. B. Gudenkauf, Sidney, alternate.—Harry Wain, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

The Academy of Medicine of Lima and Allen Counties has elected the following officers for 1942: Dr. John E. Talbott, president; Dr. L. C. Thomas, president-elect; Dr. Chester Badertscher, secretary; Dr. K. G. Hawver, treasurer; Dr. J. B. Poling, chairman, legislative committee; Dr. Oliver S. Steiner, chairman, committee on medical preparedness; Dr. J. R. Tillotson, delegate.

Dr. Samuel Iglauer, professor of otolaryngology, University of Cincinnati College of Medicine, spoke on "Deep Infections of the Neck, and Approaches to the Surgical Spaces of the Neck", at a meeting of the academy, January 20, at Lima.—Chester Badertscher, M.D., secretary.

CRAWFORD

New officers of the Crawford County Medical Society are: Dr. C. J. Griebling, Galion, president;; Dr. R. M. Malone, Galion, vice-president; Dr. M. E. Switzer, Galion, secretary-treasurer; Dr. W. G. Carlisle, Bucyrus, chairman, legislative committee; Dr. Mart L. Helfrich, Galion, chairman, committee on medical preparedness; Dr. C. A. Marquart, Crestline, delegate; Dr. K. H. Barth, New Washington, alternate.—M. E. Switzer, M.D. secretary.

Colonel Howard E. Boucher, M.C., U. S. Army, chief medical officer, State Selective Service, Columbus, discussed the role of the medical profession in the war, at a meeting of the society, January 5, at Bucyrus.—News clipping.

HANCOCK

Dr. Harry V. Paryzek, Cleveland, President of the Ohio State Medical Association, discussed organization matters at a meeting of the Hancock County Medical Society, December 4, at the Elks Home, Findlay.

The following Findlay physicians were elected officers of the society for 1942: Dr. R. S. Rilling, president; Dr. W. F. Galbreath, vice-president; Dr. M. K. Marshall, secretary; Dr. E. J. Thomas, treasurer; Dr. E. E Rakestraw, chairman, legislative committee; Dr. M. K. Marshall, chairman, committee on medical preparedness; Dr. F. M. Wiseley, delegate; Dr. J. M. Firmin, alternate. —M. K. Marshall, M.D., secretary.

HARDIN

Officers of the Hardin County Medical Society for 1942 are: Dr H. E. Gibson, Kenton, president; Dr. F. M. Elliott, Ada, vice-president and chairman, legislative committee; Dr. H. A. Kerns, Kenton, secretary-treasurer; Dr. Don R. Printz, Ada, delegate; Dr. W. P. Rickert, Kenton, alternate.—Henri A. Kerns, M.D., secretary.

LOGAN

The Logan County Medical Society held its first meeting of the year at Hotel Ingalls, Bellefontaine, January 2, with Dr. R. A. Firmin, Zanesfield, presiding. Dr. A. J. McCracken reported as chairman of the Sub-Committee on Medical-Health Defense of the Medical Preparedness Committee on matters of an organizational nature, in particular its liaison with the committee of the local American Legion Post. Dr. C. L. Barrett described a clinical case running nearly the entire gamut of pathology due to infection. Dr. F. B. Kaylor gave an exceptional resumè of diabetes mellitus and its treatment. A substantial contribution was voted for materials to develop local amateur emergency radio communication. The meeting closed with an excellent D and G film, "Purposeful Splinting of Injuries of the Hand".—O. C. Amstutz, M.D., secretary.

MARION

Dr. I. B. Harris, Columbus, spoke on "Malignancy of the Colon", at a meeting of the Marion Academy of Medicine, January 6, at the Marion City Hospital—News clipping.

MERCER

Officers of the Mercer County Medical Society for 1942 are: Dr. G. I. Scheetz, Rockford, president; Dr. C. C. Henrie, Celina, vice-president; Dr. A. J. Rawers, Celina, secretary-treasurer; Dr. John J. Shea, Coldwater, chairman, legislative committee and committee on medical preparedness; Dr. R. J. Beare, Celina, delegate; Dr. R. G.

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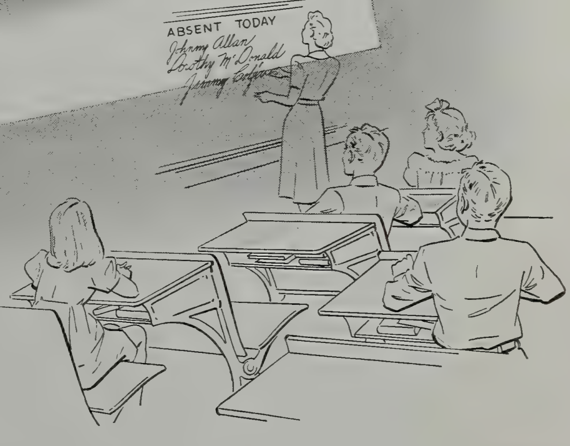

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SENECA

Twenty-three members were present at a meeting of the Seneca County Medical Society, January 8, at the Shawhan Hotel, Tiffin. Following a discussion of War Bulletins issued by the Ohio State Medical Association, motion pictures were presented, showing: "Hemorrhoidectomy"; "Surgical Treatment of Varicose Veins and Ulcers"; "Surgical Treatment of Varicose Veins with High Ligation"; "Purposeful Splinting of Injuries of Hand".—N. E. Williard, M.D., secretary.

WYANDOT

Officers of the Wyandot County Medical Society for 1942 are: Dr. S. R. Bame, Carey, president; Dr. H. K. Van Buren, Carey, vice-president; Dr. C. B. Schoolfield, Upper Sandusky, secretary-treasurer; Dr. F. M. Smith, Sycamore, chairman, legislative committee; Dr. R. L. Garster, Upper Sandusky, chairman, committee on medical preparedness; Dr. J. C. Bowman, Upper Sandusky, delegate; Dr. Garster, alternate. — John M. Thompson, M.D., retiring secretary.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

HENRY

Dr. N. W. Kaiser, of the Toledo State Hospital, was guest speaker at a meeting of the Henry County Medical Society, December 16, at the Wellington Hotel, Napoleon.

The following are officers of the Woman's Auxiliary: Mrs. D. A. Wiener, Deshler, president; Mrs. Frank Harrison, Napoleon, vice-president; Mrs. B. L. Johnson, Deshler, secretary-treasurer; Mrs. R. L. Davis, chairman, constitution committee, and Mrs. Harrison, chairman, program committee.—News clipping.

LUCAS

The Toledo Academy of Medicine presented the following programs during January:

January 2—Annual Banquet. Following a business session conducted by Dr. E. W. Huffer, president of the Academy, there was a roundtable discussion on "Current Affairs". Dr. E. J. McCormick was the discussion leader, assisted by Philip Nash, Ph.D., Robert C. Dunn, and Rev. R. J. Humbert.

January 9—Section on Pathology, Experimental Medicine and Bacteriology." Diagnosis and Treatment of Brucellosis", I. Forest Huddleson, M.S., Ph.D., professor of bacteriology and experimental medicine, Michigan State College.

January 16—Medical Section. "Diabetes", Dr. Priscilla White, Boston, Mass.

January 23—Surgical Section. "Adhesive Pericarditis", Dr. Wm. Stuart Harrington, professor of surgery, University of Minnesota Medical School.—Bulletin.

OTTAWA

New officers of the Ottawa County Medical Society are: Dr. A. S. Mack, Oak Harbor, president; Dr. W. R. Gibson, Oak Harbor, vice-president; Dr. G. A. Boon, Oak Harbor, secretary-treasurer; Dr. H. J. Pool, chairman, legislative committee; Dr. L. L. Belt, Marblehead, chairman, committee on medical preparedness; Dr. F. E. Miller, Curtice, delegate; Dr. Gibson, alternate.—Geo. A. Boon, M.D., secretary.

PAULDING

Dr. A. A. Brindley, Fourth District Councilor, Toledo, spoke at the dinner meeting of the Paulding County Medical Society, which was held December 17 at the Paulding County Memorial Hospital, Paulding. Dr. Brindley spoke on the activities of the State Council during the past several months and advised relative to the Enabling Act in regard to its application to the counties, and especially Paulding County. Dr. Brindley introduced Dr. H. M. Shellenberger, Toledo, who successfully presented to the society an eminently practical and scientific paper on the subject, "Sulfathiazole in the Treatment of Gonorrhea".Dr. Shellenberger adhered closely to sound scientific principles in the treatment of gonorrhea, pointing out both the good and the bad results to be expected by the use of any of the sulfanilamides. Questions, and a round-table discussion, followed by a rising vote of thanks to both Dr. Brindley and Dr. Shellenberger closed the meeting.

Officers of the society for 1942 are: Dr. G. L. Doster, Paulding, president; Dr. K. C. Evans, Payne, vice-president; Dr. A. F. Burson, Oakwood, secretary-treasurer; Dr. Evans, chairman, legislative committee; Dr. W. L. McKinney, Payne, chairman, committee on medical preparedness; Dr. L. R. Fast, Paulding, delegate; Dr. D. E. Farling, Payne, alternate.—A. F. Burson, M.D., secretary.

WILLIAMS

New officers of the Williams County Medical Society are: Dr. J. Fred Smith, Montpelier, president; Dr. M. R. Kittredge, Bryan, vice-president; Dr. Thos. L. Taylor, Montpelier, secretary-treasurer; Dr. H. J. Luxan, Montpelier, chairman, legislative committee; Dr. H. W. Wertz, Montpelier, delegate; Dr. H. R. Mayberry, Bryan, alternate.—Thos. L. Taylor, M.D., secretary.

WOOD

Dr. E. A. Ockuly, Toledo, spoke on "Urinary Tract Infections", at a meeting of the Wood County Medical Society, December 18, at the Woman's Club, Bowling Green. His presentation was authoritative, practical and also vastly interesting. A well-chosen set of lantern slides added to the effectiveness of the lecture. After

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a general discussion of treatment of the common infections, a rising vote of thanks was given to Dr. Ockuly. The emergency medical organization for Civilian Defense in the county was explained by Dr. H. E. Whitacre, chairman of the society's committee on medical preparedness.—D. R. Barr, M.D., correspondent for *The Journal.*

Officers of the society for 1942 are: Dr. F. V. Boyle, Bowling Green, president; Dr. E. H. Mercer, Bowling Green, vice-president; Dr. H. W. Mannhardt, Bowling Green, secretary-treasurer; Dr. D. R. Barr, Grand Rapids, chairman, legislative committee; Dr. H. E. Whitacre, Bowling Green, chairman, committee on medical preparedness; Dr. P. F. Orr, Perrysburg, delegate; Dr. E. D. Foltz, North Baltimore, alternate.—H. W. Mannhardt, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. Walter I. LeFevre, Cleveland, spoke on "X-Ray Treatment of Skin Diseases", at a meeting of the Ashtabula County Medical Society, at Ashtabula, December 9.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during January:

January 2—Clinical and Pathological Section. "Sprengel's Disease Treated Surgically", Dr. W. C. McCally; "Cases of Pneumo-peritoneum in Treatment of Pulmonary Tuberculosis", Dr. M. M Perlich; "Parasitic Fibroid Occurring After Hysterectomy", Dr. S. E. Blanford; "Cases of Plastic Correction of Projecting Ears", Dr. C. A. Hamann; "Unusual Arteriovenous Aneurysm of Hand", Dr. D. M. Glover; "A Case of Regional Enteritis", Dr. M. B. Taliak.

January 9—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Metabolism of the Male Sex Hormones and Steroids from the Adrenal Cortes", R. I. Dorfman, Ph.D., and W. R. Fish, A.B.; "Metabolism of the Estrogens and the Corpus Luteum Hormone", W. R. Fish, A.B., and R. I. Dorfman, Ph.D.; "Use of Vaginal Smears Stained by the Shorr Method in the Study of Endocrine Problems", Dr. R. A. Shipley.

January 21—Industrial Medicine and Orthopedic Section. "Hand Infections", Dr. W. C. McCally; "Analysis of Cases of Bone Tuberculosis", Dr. A. W. Tramer; "The Hanging Cast in Fractures of the Humerus", Dr. B. B. Larsen; "Vitallium Cup Arthroplasty of Hip in Arthritis", Dr. R. S. Reich; "Synovectomy of Knee in Arthritis", Dr. L. M. Starin; "Intertrochantric Fractures of the Hip", Dr. W. H. McGaw.

January 28—Pediatric Section. Roundtable Discussion of Pertussis (Bacteriology, Prophylaxis,

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Therapy). Participants: Dr. J. W. Epstein, Dr. J. A. Doull, Dr. G. S. Shibley, Dr. C. W. Wyckoff, Dr. J. R. Kramer, Akron.

New officers of the Woman's Auxiliary are: Mrs. L. F. Huffman, president; Mrs. John Phillips, vice-president; Mrs. C. H. Lenhart, secretary-treasurer; Mrs. A. B. Bruner, Mrs. C. G. LaRocco, Mrs. C. A. Swan, and Mrs. F. C. Oldenburg, past-president—members of the Board of Directors; Mrs. E. F. Kieger, Mrs. E. P. McNamee, Mrs. H. V. Paryzek and Mrs. J. L. Reycraft; delegates, Mrs. C. E. Kinney, Mrs. E. A. Marshall, Mrs. I. F. Weidlein and Mrs. T. T. Zuck, alternates.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Mack Sauer, humorist and country newspaper editor, was the principal speaker at the Annual Banquet of the Mahoning County Medical Society, January 20, at the Youngstown Club, Youngstown.—Bulletin.

Officers of the society for 1942 include: Dr. Walter King Stewart, president; Dr. Wm. H. Evans, president-elect; Dr. Geo. M. McKelvey, secretary; Dr. Elmer H. Nagel, treasurer; Dr. Raymond A. Hall, chairman, legislative committee; Dr. Joseph C. Hall, chairman, committee on medical preparedness; Dr. Gordon G. Nelson, Dr. Edw. J. Reilly and Dr. John N. McCann, delegates; Dr. L. K. Reed, Dr. P. J McOwen and Dr. J. B. Birch, alternates.—Mary B. Herald, executive secretary.

PORTAGE

Dr. E. Perry McCullagh, Cleveland, was guest speaker at a meeting of the Portage County Medical Society, January 8, at Robinson Memoral Hospital, Ravenna.—Emily J. Widdecombe, M.D., secretary.

STARK

Dr. Thomas E. Jones, Cleveland, spoke on "Injury and Repair of the Common Duct", and Dr. Russell L. Haden, Cleveland, discussed "Polycythemia", at a meeting of the Stark County Medical Society, January 15, at St. Paul's Episcopal Church, Canton.

Officers of the society for 1942 include: Dr. Fred G. King, Canton, president; Dr. Geo. W. Wilcoxon, Canton, president-elect; Dr. Harold J. Bowman, Canton, secretary-treasurer; Dr. John Van Dyke, Canton, chairman, legislative committee; Dr. C. A. La Mont, Canton, chairman, committee on medical preparedness; Dr. C. N. Wenger, Massillon; Dr. J. E. Purdy, Canton, and Dr. Clair B. King, Canton, delegates; Dr. J. E. Aten, Canton; Dr. L. E. Anderson, Greentown; and Dr. J. E. Klinge, Massillon, alternates.—Harold J. Bowman, M.D., secretary.

A meeting of the Woman's Auxiliary was held at the home of Mrs. C. M. Peters, Canton, December 16.—News clipping.

SUMMIT

Dr. Louis J. Karnosh, Cleveland, associate clinical professor of nervous diseases, Western Reserve University School of Medicine, spoke on "The Management of the Nervous Patient", at a meeting of the Summit County Medical Society, January 6, at the Mayflower Hotel, Akron. —Bulletin.

TRUMBULL

New officers of the Trumbull County Medical Society are: Dr. D. R. Mathie, Newton Falls, president; Dr. W. G. Totterdale, Warren, vice-president; Dr. A. H. Seiple, Warren, secretary-treasurer; Dr. R. D. Herlinger, Warren, chairman, legislative committee; Dr. Herlinger, delegate; Dr. J. D. Knox, Warren, alternate.—A. H. Seiple, M.D., secretary.

Twenty-one members attended the Christmas party of the Woman's Auxiliary, December 9, at the Hotel Warner, Warren.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

CARROLL

Officers of the Carroll County Medical Society for 1942 are: Dr. P. S. Whiteleather, Minerva, president; Dr. J. H. Murray, Carrollton, vice-president;. Dr. S. L. Weir, Minerva, secretary-treasurer; Dr. Murray, chairman, legislative committee; Dr. Glenn C. Dowell, Carrollton, chairman, committee on medical preparedness; Dr. Whiteleather, delegate; Dr. Weir, alternate.—W. G. Lyle, M.D., retiring secretary.

HARRISON

Officers of the Harrison County Medical Society for 1942 are: Dr. James A. L. Toland, Jewett, president; Dr. C. F. Goll, Hopedale, vice-

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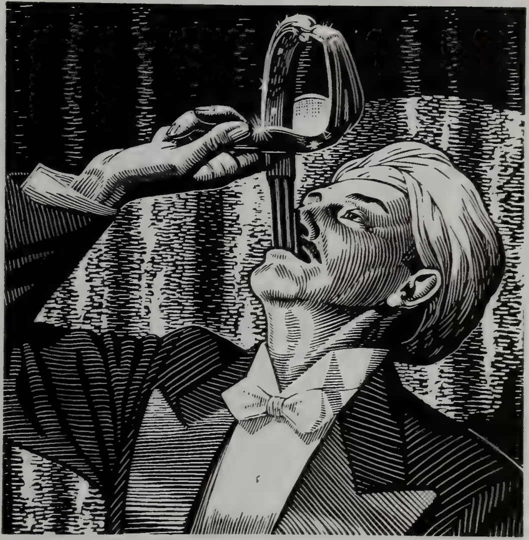

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president; Dr. F. Foster Dye, Cadiz, secretary-treasurer; Dr. G. E. Henderson, New Athens, chairman, legislative committee; Dr. Dye, chairman, committee on medical preparedness; Dr. E. L. Miller, Bowerston, delegate; Dr. D. C. Pettay, Cadiz, alternate.—F. Foster Dye, M.D., secretary-treasurer.

JEFFERSON

The Jefferson County Medical Society has elected the following Steubenville physicians as officers for 1942: Dr. F. B. Harrington, president; Dr. Edward B. Weinman, vice-president; Dr. D. R. Cahill, secretary-treasurer; Dr. E. J. C. Sander, chairman, legislative committee; Dr. Harrington, chairman, committee on medical preparedness; Dr. S. J. Podlewski, delegate; Dr. S. A. Harris, alternate.—D. R. Cahill, M.D., secretary.

TUSCARAWAS

New officers of the Tuscarawas County Medical Society include: Dr. Burrell Russell, New Philadelphia, president; Dr. Henry B. Kistler, Newcomerstown, vice-president; Dr. D. M. Ceramella, New Philadelphia, secretary-treasurer; Dr. J. W. Calhoon, Uhrichsville, chairman, legislative committee; Dr. C. M. Dougherty, New Philadelphia, chairman, committee on medical preparedness.—Burrell Russell, M.D., president.

At a meeting of the society, January 8, at the Hotel Reeves, New Philadelphia, Dr. Carl A. Lincke, Carrollton, member of the Committee on Medical Preparedness of the Ohio State Medical Association, discussed some of the responsibilities of the medical profession in the present emergency, and Dr. Richard Dexter, Cleveland, spoke on "Chronic Cardiac Condition".—Bulletin.

The Woman's Auxiliary was host at a meeting open to the public, January 7, at the New Philadelphia Public Library. The program included musical selections and a review of the Perry Burgess book, "Who Walk Alone", by Mrs. Emmet Maughiman.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. N. Paul Hudson, Columbus, professor of bacteriology, Ohio State University College of Medicine, told of medical and public health conditions in England, at a meeting of the Athens County Medical Society, December 9, at the Hotel Berry, Athens. Dr. Hudson spent eight months in England last year as a member of the Rockefeller Foundation Committee.—News clipping.

FAIRFIELD

The following Lancaster physicians are officers of the Fairfield County Medical Society for 1942; Dr. W. E. Wiyiarch, president; Dr. M. E. Nichols, vice-president; Dr. Carl W. Brown, sec-

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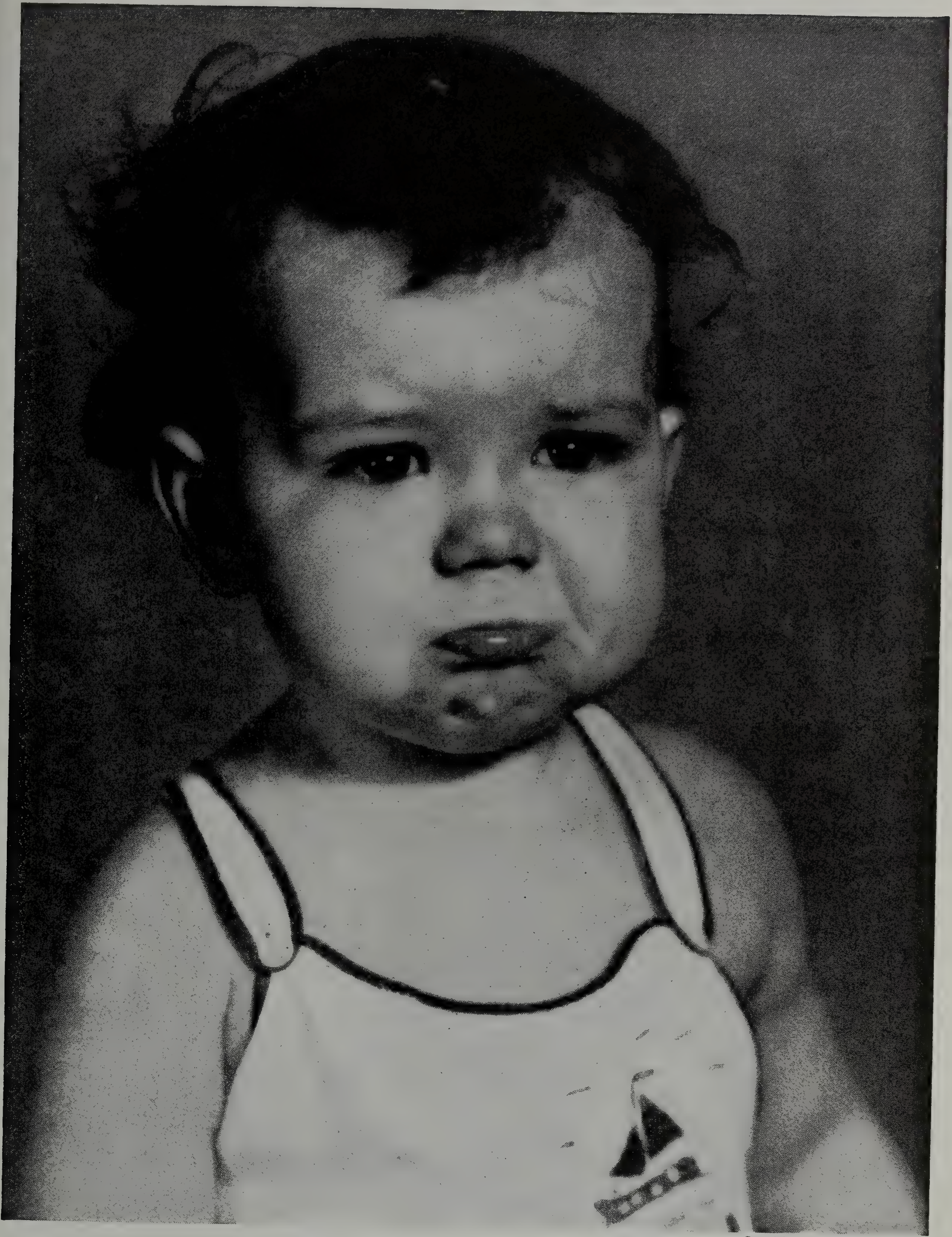

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MUSKINGUM

Officers of the Muskingum County Academy of Medicine for 1942 include the following Zanesville physicians: Dr. S. W. Obenour, president; Dr. A. C. Ormond, vice-president; Dr. B. T. Hagen, secretary-treasurer; Dr. Robert S. Martin, chairman, legislative committee; Dr. Fred W. Phillips, chairman, committee on medical preparedness; Dr. M. A. Loebell, delegate; Dr. C. F. Sisk, alternate.—Beatrice T. Hagen, M.D., secretary.

PERRY

At a meeting of the Perry County Medical Society, December 18, at New Lexington, the following officers were elected for 1942: Dr. Harry W. Shaw, New Lexington, president; Dr. James Miller, Corning, vice-president; Dr. F. J. Crosbie, New Lexington, secretary-treasurer; Dr. C. B. McDougal, New Lexington, chairman, legislative committee; Dr. Miller, chairman, committee on medical preparedness and delegate; Dr. E. D. Allen, Crooksville, alternate.—F. J. Crosbie, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

GALLIA

The following Gallipolis physicians are officers of the Gallia County Medical Society for 1942: Dr. N. H. Foster, president; Dr. Paul C. Foster, secretary-treasurer; Dr. C. E. Holzer, chairman, legislative committee; Dr. H. B. Thomas, chairman, committee on medical preparedness; Dr. F. W. Shane, delegate.—Paul C. Foster, M.D., secretary.

HOCKING

Officers of the Hocking County Medical Society for 1942 are the following Logan physicians: Dr. Allan A. Cole, president; Dr. John S. Cherrington, vice-president; Dr. M. H. Cherrington, secretary-treasurer; Dr. J. S. Cherrington, chairman, legislative committee; Dr. H. M. Boocks, chairman, committee on medical preparedness; Dr. Lethia Starr Boocks, delegate; Dr. H. M. Boocks, alternate.—M. H. Cherrington, M.D., secretary.

MEIGS

Officers of the Meigs County Medical Society for 1942 include: Dr. R. E. Boice, Middleport, president, and Dr. E. D. McCullough, Pomeroy, secretary-treasurer.—E. D. McCullough, M.D., secretary

SCIOTO

Dr. R. A. Ramsey, Columbus, spoke on "Medical Aspects of Thyroid Disease", at a meeting of

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the Hempstead Academy of Medicine, January 12, at the Portsmouth General Hospital.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

DELAWARE

At a meeting of the Delaware County Medical Society, December 16, at Delaware, the following officers were elected for the ensuing year: Dr. George D. Lowry, Delaware; Dr. G. E. Robinson, Ostrander, vice-president; Dr. F. M. Stratton, Delaware, secretary-treasurer; Dr. E. V. Arnold, Delaware, chairman, legislative committee; Dr. M. S. Cherington, Delaware, chairman, committee on medical preparedness; Dr. W. E. Borden, Delaware, delegate; Dr. F. V. Miller, Delaware, alternate.—F. M. Stratton, M.D., secretary.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during January:

January 5—"Tumors of the Endocrine Gland", Dr. Emmerich von Haam.

January 19—Symposium on "Medicine and the War", Col. H. E. Boucher, Chief, Medical Section, State Selective Service, and Major P. P. Pease and staff, Fort Hayes.

January 26—Section in General Medicine. "Residue of Pelvic Infections", a motion picture by Dr. Arthur Curtis, professor of obstetrics and gynecology, Northwestern University Medical School, with discussion by Dr. Roy E. Krigbaum and staff.—Bulletin.

Members of the Woman's Auxiliary were entertained with a musical tea at the University Clubs, December 15.—News clipping.

Officers of the Academy for 1942 include: Dr. Harry E. LeFever, president; Dr. George T. Harding, president-elect; Dr. Gilman D. Kirk, secretary-treasurer; Dr. Wells H. Teachnor, chairman, legislative committee; Dr. Wm. B. Morrison, chairman, committee on medical preparedness; Dr. Charles W. Pavey, Dr. Edwin J. Stedem, Dr. John M. Thomas, Dr. I. B. Harris, Dr. Leslie L. Bigelow and Dr. Russel G. Means, delegates; Dr. Wm. B. Harris, Dr. Louis N. Jentgen, Dr. Harry E. LeFever, Dr. John H. Mitchell, Dr. John E. Brown, Jr., and Dr. Roy J. Secrest, alternates.—S. R. Mauck, executive secretary.

MADISON

Dr. Henry H. Schwarzell, Columbus, was guest speaker at a meeting of the Madison County Medical Society, January 9, at the home of Dr. J. W. Hurt, West Jefferson.—News clipping.

The society has elected the following officers for 1942: Dr. H. E. Karrer, Plain City, president; Dr. W. M. McShane, London, vice-president; Dr. H. D. Wright, West Jefferson, secretary-treas-

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MORROW

The following officers of the Morrow County Medical Society have been re-elected to serve in 1942: Dr. F. M. Hartsook, Cardington, president; Dr. C. S. Jackson, Mt. Gilead, vice-president; Dr. F. H. Sweeney, Mt. Gilead, secretary; Dr. R. L. Pierce, Mt. Gilead, treasurer; Dr. E. C. Sherman, Cardington, chairman, legislative committee; Dr. Wm. Lowell Murphy, Cardington, chairman, committee on medical preparedness and delegate; Dr. J. P. Ingmire, Mt. Gilead, alternate.—F. H. Sweeney, M.D., secretary.

PICKAWAY

The following Circleville physicians are officers of the Pickaway County Medical Society for 1942: Dr. D. V. Courtright, president; Dr. E. S. Shane, vice-president; Dr. Ned B. Griner, secretary-treasurer and chairman, legislative committee; Dr. V. D. Kerns, chairman, committee on medical preparedness; Dr. G. W. Heffner, delegate; Dr. A. D. Blackburn, alternate.—Ned B. Griner, M.D., secretary.

ROSS

Dr. Esther C. Marting, Cincinnati, spoke on "Malignancies and Their Treatment", at a meeting of the Ross County Academy of Medicine, January 8, at the Chillicothe Country Club.—News Clipping.

UNION

Officers of the Union County Medical Society for 1942 are: Dr. Angus MacIvor, Marysville, president; Dr. B. E. Ingmire, Plain City, vice-president; Dr. J. M. Snider, Marysville, secretary-treasurer; Dr. F. C. Callaway, Marysville, chairman, legislative committee; Dr. MacIvor, chairman, committee on medical preparedness; Dr. H. C. Duke, Richwood, delegate; Dr. John D. Boylan, Milford Center, alternate.—James M. Snider, M.D., secretary.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

At a meeting of the Ashland County Medical Society, December 12, at Ashland, the society elected the following Ashland physicians officers for 1942: Dr. R. P. Bogniard, president; Dr. H. Wayne Smith, vice-president; Dr. L. Harold Martin, secretary-treasurer; Dr. Herman M. Gunn, chairman, legislative committee; Dr. Paul E. Kellogg, chairman, committee on medical preparedness; Dr. M. D. Shilling, delegate; Dr.

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Gunn, alternate.—L. Harold Martin, M.D., secretary.

ERIE

The following Sandusky physicians are officers of the Erie County Medical Society for 1942: Dr. Ross M. Knoble, president; Dr. Wm. F. Burger, vice-president; Dr. E. J. Meckstroth, secretary-treasurer; Dr. H. N. Sarchet, chairman, legislative commttee; Dr. A. R. Grierson, chairman, committee on medical preparedness; Dr. Knoble, delegate; Dr. V. A. Killoran, alternate. —Ross M. Knoble, M.D., retiring secretary.

HOLMES

Officers of the Holmes County Medical Society for 1942 include: Dr. Neven B. Stauffer, Killbuck, president; Dr. A. J. Earney, Millersburg, secretary-treasurer; Dr. A. T. Cole, chairman, legislative committee; Dr. Earney, chairman, committee on medical preparedness.—A. J. Earney, M.D., secretary.

LORAIN

At a meeting of the Lorain County Medical Society, January 13, at Elyria, a technicolor sound movie, entitled "Adrenal Cortical Insufficiency" was shown. It deals with Addison's Disease and varying degrees of hypoadrenia.

Officers of the society for 1942 are: Dr. John T. Fawcett, Elyria, president; Dr. P. C. Colegrove, Oberlin, vice-president; Dr. L. H. Trufant, Oberlin, secretary-treasurer; Dr. George N. Nicholas, Elyria, chairman, legislative committee; Dr. Trufant, chairman, committee on medical preparedness; Dr. Chas. R. Meek and Dr. Waite Adair, Lorain, delegates; Dr. Russell M. Arnold, Avon Lake, and Dr. Virgil C. Hart, Oberlin, alternates.—L. H. Trufant, M.D., secretary.

MEDINA

Officers of the Medina County Medical Society for 1942 are: Dr. H. T. Pease, Wadsworth, president; Dr. R. G. Johnston, Medina, vice-president; Dr. Morris Wilderom, Medina, secretary-treasurer; Dr. R. L. Mansell, Medina, chairman, legislative committee; Dr. J. R. Moorehead, Seville, chairman, committee on medical preparedness; Dr. J. L. Jones, Medina, delegate; Dr. N. J. Klotz, Wadsworth, alternate.—Morris Wilderom, M.D., secretary.

WAYNE

Officers of the Wayne County Medical Society for 1942 are: Dr. O. P. Ulrich, Orrville, president; Dr. E. W. Douglas, Wooster, vice-president; Dr. R. C. Paul, Wooster, secretary-treasurer; Dr. Robert F. Hecker, Orrville, chairman, legislative committee; Dr. Paul, chairman, committee on medical preparedness and delegate; Dr. A. C. Smith, Wooster, alternate.—R. C. Paul, M.D., secretary.

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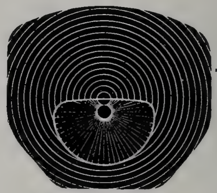

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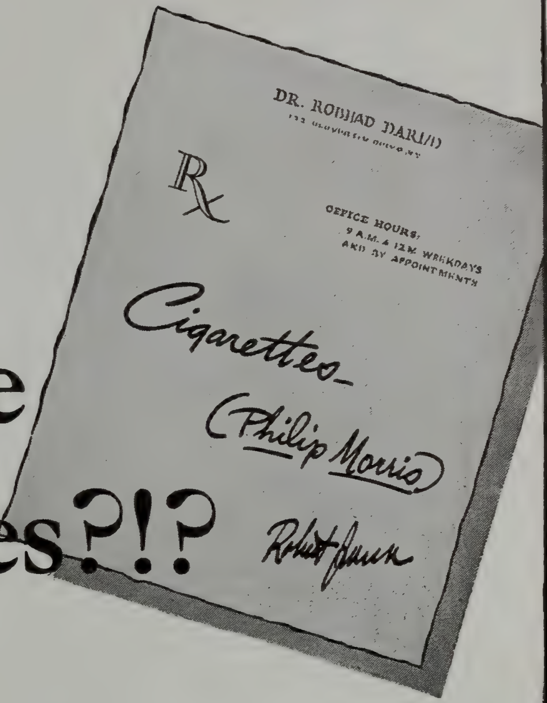

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The Physician's Bookshelf

Infantile Paralysis in the Acute Stage, by Elizabeth Kenney, R.N. *(Bruce Publishing Co., Minneapolis)*, is an original monograph by this Australian authority and is a "must" book in the reading of all who come in contact with the disease and are interested in preventing contractures.

Social Influences Affecting the Behavior of Young Children, by Ruth Pearson, Koshuk ($1.00. *Monographs of The Society Research In Child Development*, Volume VI, Serial No. 28, No. 2), showing the trends and foci of interests which are apparent in the many and diverse approaches of child development.

Diseases of Women, by Harry S. Crossen, M.D., and Robert J. Crossen, M.D. ($12.50. Ninth Edition, *C. V. Mosby Company, St. Louis)*, maintains the high traditions of the previous editions and places an increasing emphasis upon a knowledge of physiology.

Infant Nutrition, A Textbook of Infant Feed for Students and Practitioners of Medicine, by Williams McKinn Mariott, M.D., revised by P. C. Jeans, M.D. (Third Edition, *C. V. Mosby Company, St. Louis)*, presents the scientific fundamentals and establishes the whole subject on a simpler and more commonsense basis. The third edition brings this subject up-to-date.

Diseases of the Veins and Lymphatics of the Lower Extremity, by C. H. Verovitz, M.D. ($6.00. *Christopher Publishing House, Boston)*, presents in simple lucid style the information necessary to meet the daily problems in this field. Our fellow member has done an excellent job and has made his book much more interesting by introducing many case histories, each with its own complications and treatment.

Hippocratic Medicine, Its Spirit and Method, by William Arthur Heidel ($2.00. *Columbia University Press, New York City)* is the work of the late well-known Greek student. Hippocrates was of that golden, pre-Christian era in which began all the knowledge succeeding centuries were to bring. The author has succeeded in bridging the gulf of intervening ages so that kindred spirits may meet and salute one another. This book cannot be recommended too highly to every physician who has a trace of medical culture in his soul.

A Manual of Bandaging, Strapping and Splinting, by Augusta Forndike, Jr., M.D. (Paper, $1.50. *Lea & Febiger, Philadelphia)*, demonstrates the proper technique of these arts. It should be equally valuable to the young surgeon, the medical student, the nurse, the interne and to those groups of laymen who are now being prepared to assist the medical profession in civilian defense.

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The Ohio State Medical Journal

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Vol. 38 March, 1942 No. 3

JONATHAN FORMAN, M.D., *Editor*

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GEORGE H. SAVILLE, *News Editor*

Psychoses As a Problem For the Practitioner

An Interpretative Review in Non-Technical Language

JOSEPH L. FETTERMAN, M.A., M.D.*

THE general practitioner has had a phobia towards the subject of mental disease for a variety of reasons. The subject itself had been presented in unclear and lengthy terms and by a list of symptoms difficult to comprehend. Then too, the patients have been difficult to manage or to understand. Finally, the therapeutic results have been dismal. Yet today progress in psychiatry warrants a change in attitude from aversion to interest. The general practitioner, who is the first line of defense, should therefore consider the new concepts and the new techniques of therapy.

It is the aim of this paper to present briefly a simple outline of the psychoses and to review the new modes of treatment. Obviously space permits only of a bird's eye view of this vast and complicated subject, and the author will select only certain topics. The reader is referred to textbooks for more detailed discussion and for bibliography.[1,2,3]

Psychoses are diseases of the mind, formerly called insanity, in which there is a major change in thought, words, and deeds of the patient. The current phrase, "a psychotic is out of touch with reality", applies to many such patients. More correctly, a psychosis is an illness in which the patient mistakes external events or internal sensations, misinterprets them because of his failing capacity to judge or because of inner drives; he neglects his customary or constructive role and acts contrary to his own interests, often expressing ideas and thoughts which are obviously false according to normal standards. Such errors in the mental life of a patient are symptoms of psychoses. They may occur in transitory fashion in any normal individual, but their persistent development in major form becomes mental disease. As the reader well knows, the term, psychoses, includes a large variety of illnesses. From the peculiar derangement of late adolescence to the failing faculties of the senile, it encompasses the obvious organic brain diseases such as paresis, the cycling moods of depression and mania, and the most common of all mental illnesses, schizophrenia, formerly called dementia precox.

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Let us now review the commonest symptoms which may be encountered by the general practitioner.

SYMPTOMS OF PSYCHOSES

The function of the mind is to enable the individual to get along with himself, his fellow men, and his environment, so that he may obtain the maximum of safety, security and happiness during his lifetime. These duties impose a tremendous task upon the mind: the awareness of the present, the recall of the past, the planning for the future. It demands a proper recognition of one's impulses and an effort to guide instincts towards constructive channels. It calls forth a proper realization of one's place with one's fellow men, an assumption of responsibilities in work and play and social contacts. Man must find himself in the vastness of nature and in the beauties and dangers of environment. The average individual fulfills these duties fairly satisfactorily. He is not perfect. Either during short periods of illness or in certain moments of weakness, he fails in some of these demands. But when such failure is more lasting and more serious, the condition may represent a psychosis. Such failure leads to the symptoms of psychoses, and we shall taken them up under the headings of (1) somatic disturbances, (2) behavior difficulties, (3) distorted thought and ideas. Mood changes of serious degree may occur as part of such disordered ideas or may in themselves constitute a serious mental illness.

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A. SOMATIC SYMPTOMS

Bodily complaints are mentioned first because they are often the earliest. Practically every psychotic patient presents bodily complaints. Somatic symptoms may be few in certain illnesses and extremely abundant in other psychoses.

The somatic complaints do not differ from those of the normal individual who has an injury or illness, but, in the course of time, certain added features give a clue as to their origin and meaning. The symptoms may be related to any part of the body, be mild or intense, transitory or persistent.

The cause of bodily distress and somatic complaints is manifold. The psychotic, like the average normal, may have temporary dysfunction of any part of the body: headache, anorexia, palpitation. Furthermore, certain mentally ill patients have withdrawn the major interest from the world at large and directed it upon themselves. Attention cultivates symptoms. Physical complaints may result from the organic brain changes in other areas than the cortex and association fibers. As an example, we may mention the fact that in paresis, damage to the basal ganglia and to the vegetative centers may lead to involuntary movements and to weight loss. Also, the inflammatory process in the brain brings about headache and possibly nausea and vomiting. In the depressions, physical symptoms parallel the mood change.[4] A decreasing flow of saliva is associated with a bitter taste in the mouth; sluggish peristalsis may be accompanied by a feeling of epigastric heaviness; reduced muscle tone is experienced as a tiredness and aching heaviness in the legs. In melancholia practically any region of the body may give distressing symptoms.

Many symptoms are secondary to the emotional change or the behavior of the psychotic. Many patients with mental illness develop intense fear reactions. Such fear is responsible for disordered body physiology. Furthermore, bodily neglect, wakefulness, even self-punishment lead to somatic difficulties.

Inasmuch as somatic symptoms of psychotic patients do not differ from those of the average individual, what special characteristic features do they have?

PECULIAR INTERPRETATION

The normal person may not know the cause of his distress and attempts to find some explanation, faulty as it may be. He will seek the advice of someone better qualified than himself and will often accept this person's judgment. Not so the psychotic. Often he has found his own conclusion and this analysis may concern others about him. Let us mention several examples of such interpretation.

(a) Says Mr. G. W.: "I am sick; my arms ache and tremble; I cannot eat; I cannot sleep.—And I know the cause. I have been an evildoer and I am being punished by Him, so that I can never get well." Self-accusation, with physical symptoms, is fairly common in certain depressions.

(b) M. G. states: "I am growing weaker; I cannot eat; I am losing weight; I have indigestion. —I can't eat because the food tastes badly; it has a bitter chemical taste. I wonder if someone has put poison in it; I am beginning to get suspicious about my wife." This is an example of a paranoid-like interpretation of symptoms.

(c) "I have distress in my stomach; in fact, my stomach is gone entirely; my bowels haven't moved for months; don't give me any food because I can't digest it." This is an example of "visceral nihilism", a persistent, fixed idea representing total loss or partial malfunction in some portion of the body. The symptom of visceral nihilism occurs not infrequently in the melancholias of later life.

Individual symptoms are too numerous to be reviewed here. It may be mentioned in passing that the symptoms may be brief or may persist indefinitely. Occasionally, the patient announces complete freedom from any bodily discomforts; all his former difficulties have cleared up. Such a pronouncement is made with a look of ectasy: "All my troubles have vanished. . . . My body feels perfect. . . . For, I have had a vision and I have discovered the secret of perfect health".

The general physician must bear in mind that symptoms are more than local processes.[5] Certain of the mental features which are responsible for symptom formation have been the subject of a careful series of studies by Angyal.[6]

B. BEHAVIOR DISTURBANCES

Whereas symptoms belong to all illnesses, major alterations in behavior are more characteristic of mental illness. One who is emotionally out of tune with reality or who is trying to live within a world of his own and at the same time exist in our world sooner or later develops trouble. Destructive and abnormal behavior may be a part of criminality and not necessarily a symptom of psychosis. Our present discussion, however, is limited to the psychotic behavior reactions. Also, we should bear in mind that behavior is the outward motor expression of mood and ideas. . . . It is "thought in action".

1. BEHAVIOR MANIFESTATIONS OF MOOD ILLNESSES

Let us glance at the mood changes of the manic-depressive psychoses. During the upswing, the person is cheery, effervescent with the joy of triumph and well-being, overactive with zestful, bounding energy. I have often considered the manifestations as belonging to several S's: Speaking, Speeding, Spending. The manic or hypomanic speaks loudly and fluently, with little pause, with lack of critical self-observation, without regard for the opinion of his fellow men. There is speeding in his movements: he paces about hastily; he hurries from place to place. Without the brake of self-analysis or fatigue, he races on and on, colliding with others, stepping beyond the conventions of taste and judgment. The term, spending, is used for the extravagant purchases and plans for acquisition which go far beyond the person's capacity. In the more severe manic illness, this overactivity exceeds all bounds. Like a rushing stream splashing endless sprays in its downward course over a falls, so the words and ideas splash on and on in hasty, endless procession.

At the opposite pole are the depressions in which appears a contraction of the sphere of interest so that the individual prefers to draw into his own shell. There is silence, a lessening of activity, an almost paralyzing self-analysis. The expression is sad, perhaps weepy, the bodily posture shows a sagging, exhausted appearance. Sometimes there will also be picking and fumbling and pacing, but this is not the directed activity of achievement. Rather it is an attempt to overcome the inner anguish. Either the joyous, bouyant overactivity of the manic stage or the sad, droopy inactivity of depression is fairly characteristic.

2. BEHAVIOR TYPES

(a) **Isolationist**—As schizophrenia develops, the patient may neglect the proper attention to himself and may give up his constructive duties in life. He withdraws his interest from the demands about him and becomes more and more absorbed in the fantasy world which he has created. He may pass through a world of bewilderment until ultimately he gives little heed to his normal responsibility and is entirely preoccupied by the inner sphere. For, within his own private world, he hears voices that threaten or flatter him; he has created delusions which change his stature and point the way towards grand achievement. The schizophrenic may identify himself with the powers that rule the universe and thus disdain the trivial tasks of ordinary mortals. Some schizophrenics will announce to the world their mission and their greatness. The majority withdraw from the moving stream of life. And so, we see the patient sitting in a chair staring into space, a pleasant smile upon his features. He may go to bed and remain there for days on end. A few will stand immobile as a marble statue in a museum, remain for hours or days as though frozen to the floor. When such individuals are spoken to or invited to join the rest of the family, they will decline to answer, perhaps ignore the invitation. If one attempts to coax them, let us say to the dinner table, the sick individual will resist bodily and may even strike the one who invites him. Technically, we speak of the negativism of schizophrenia, the resistiveness, and we give the special name of catatonia to the statuesque isolation of certain types. Stimuli from the world at large represent an unwelcome intrusion upon the isolated existence of the schizophrenic.

(b) **Suspicious**—Some mentally ill patients are concerned with the world about them, but believe that they have been harmed, possibly persecuted by an individual, a group, a religion, or a nation. A person inclined to question, one who is apt to blame others for his trouble may develop such a reaction. He or she suffers some digestive disorder. Almost immediately he becomes suspicious of the taste of the food and may take a sample to be analyzed by some laboratory, fearing poison. He will also investigate his contacts, seeking for evidence. With keen study and attention, he will attempt to solve the problem of his torment, sometimes offering a solution which raises his own self-esteem: "I have pains in my body; it feels like pin pricks; I am being shot with electricity. A large religious group is plotting to get me. I know why it is; they realize that I am destined to become the leader of another religion".

The suspicious individual may develop the illness known as the paranoid state. He will usually show his illness in many ways. He may demand physical examinations and many laboratory tests to find poison. He may write to certain authorities to ask for protection or to insist upon the punishment of his tormentors. These people do not hesitate to write to the governor or to the President of the United States to have the "wrongdoers" punished. The more meek among the suspicious group may avoid those who persecute them, sometimes even hiding themselves. A Mr. A. M. noticed that certain automobiles were passing his home. It occurred to him that a gang of bootleggers might be following him and were trying to spy upon him. He became so fearful that he concealed himself in his basement for many weeks so as to elude his pursuers. A Mr. T. K. also became aware of people and automobiles passing his home. It was winter and he therefore decided to leave Cleveland and go to Miami, Florida. As he and his wife drove through the South, he noticed that several automobiles had Ohio licenses. It then dawned on him that he was being followed. When he reached Atlanta, he left his car and decided to take a plane back to Cleveland. Alas for him, he "recognized" several of his fellow passengers in the plane as the same pursuers who had been in the automobiles that had followed him. Despite his efforts to escape, he felt that he was still being followed and he therefore hurried to a hospital for protection.

Not all suspicious persons are meek. Many of them are quarrelsome and aggressive. They will endure persecution and torment only so long and then turn against their tormentors. Thus they besome assaultive, even homicidal.

In the previous section, a few words of case history were mentioned in connection with Mr. M. G. who had complained that his indigestion came from poison in his food. He became watchful and his suspicions were directed towards his wife: "I am becoming weaker and she looks well; she must have another lover and is trying to get rid of me." Day after day he studied his wife's actions and became ever more convinced that she was the source of his difficulty. He argued and quarreled, and begged her to desist from her criminal doings. The more she denied his accusations, the more enraged he became. One day he left the house after a quarrel. He procured a gun, came home, and shot his wife through the heart.

The delusion of persecution is not limited to one type of psychosis. It may occur in both the depressed and manic states as well as in the organic brain diseases. The earlier personality characteristics may determine the behavior type. Certain individuals whose inherent tendency is to suspect or blame others will, in illness, attribute failing health or financial difficulty to the wrongdoing of others. An environment which they fail to understand is feared and suspected.

(c) **Behavior Type of Success**—Certain behavior reactions denote achievement either in the form of personal triumph or in an attempt to win the world towards new principles and new goals. Certain schizophrenic patients have tried to solve the problem of the universe and have finally come to the conclusion that they have been designated by God to fulfill some divine mission. The person then shows this elevation in his behavior towards others. Sometimes this feeling of success may bring with it almost total body destruction. Miss S. T. had lost interest in her work and spent much time daydreaming. She became overjoyed and announced to her family that she had seen a vision. She was now to be the bride of Christ. She gave up her job, declined her salary, because she did not need money, and refused all nourishment. She stated that henceforth she would lead only a spiritual existence and did not need such things as food. She became so enfeebled that hospitalization was necessary. Her face carried a smile of ecstasy, though her body was wasting away. It was necessary to feed her by tube or she might have starved to death.

More frequently, a feeling of success is expressed by outward evidence: cheerfulness, friendliness towards one's family and the outward world. Such individuals attempt to convince others. They may become leaders of groups and organizations. A few are fortunate and attain their goal. They win support and followers. The majority cannot maintain this position, the illness grows worse, there is physical and mental enfeeblement, and then they give evidence of deterioration.

The picture of success of certain schizophrenics may dwarf the delusions of grandeur which occur in paresis. In this illness, the patient speaks with unbounded self-confidence about his wealth, his prowess, and his plans. However, this period of triumph is shortlived, further symptoms develop and there may be forgetfulness, sometimes stupor, and then complete dementia.

In general, it may be said of the behavior reactions that they are determined by the ideas of the patient and the attitude of the environment. To a large degreee, the disturbed thinking dictates words and action. Muscles are the messengers of the mind. Consequently, the walking and talking or yelling and weeping are executed in response to ideas. Often also the outward actions or the behavior represent an escape from or an attempt to overcome the inner thoughts. The depressed patient who twists a handkerchief all day long, or the one who is striking himself is using his muscular activity to divert his thoughts from his inner anxieties. Another individual pounded his head against the wall or allowed himself to fall violently against the wall. Later, when he had improved from his illness, he stated: "I heard a voice and this voice accused me of being a coward, called me yellow, told me that I was afraid to prove myself a man. And when I was defiant, the voice said: 'Go ahead, prove it to me; see if you can stand breaking your head against the wall; see if you can strike the ground with your body'. The voice tormented me, urged me on until finally I decided to prove that I was no coward, and that was why I did those things".

There are times when a patient with mental illness presents little or no behavior difficulty. Indeed, he may dress, talk and conduct himself in an orderly manner. It is a common experience that certain very sick patients may sit quietly and meekly for hours and be looked upon by their families or attendants as "well". In such instances, it is the lack of activity, the failure to carry out one's duties, the failure to assume responsibility that represent the serious aspect of the illness. One would expect such people to consider the next day, be concerned about work, make some protest about their inactivity. Their utter resignation and their willingness to remain inactive plus certain peculiar ideas are the manifestations of trouble.

Of major significance in the development of behavior symptoms is the attitude of those who are around the patient. If the attendants or family disagree with the patient, he may argue loudly. If one attempts to restrict his activities or to control his movements, then he is apt to become resentful and even assaultive. Thus the yelling, tearing wildness may be an effort to escape harm and danger.

C. IDEATIONAL ABNORMALITIES

A normal person is part of a constellation, linked by ties to his family, his circle of friends, his nation. He recognizes his own position in this ever-widening circle and is aware of his position in nature. He is conscious of the present and of the future.

During daydreams, under the influence of alcohol, and in dreams at night, a normal man may temporarily leave the bounds of factual existence and permit his imagination to soar. Then his achievement may aspire to almost divine proportions; his mind can encompass time up to eternity. But the normal individual soon recognizes that he was dreaming and gradually or quickly returns to his objective appraisal. To meet the unpleasant situations of life, he has fortified himself with poetry and music and religion. Much as he gains from the cultural and spiritual, he never entirely loses his perspective of reality. Not so the mentally ill patient.

The psychotic can create and live in Heaven or Hell today, not in the future. In the early stages of schizophrenia, the patient often identifies himself with God and with the Power that rules the world. "God talked to me and told me to leave the earthly existence and come to Heaven, for a golden chair is waiting for me." "I looked into the sky and the clouds vanished and in their place appeared letters, the largest letters I ever saw. They read 'P-O-W-E-R'. I am sure that it was God writing to me to tell me that I now possess a power almost as great as His and that I should go forth to use it."

In contrast with such ideas of almost divine achievement come delusions of tragic misery. "Don't come near me. I am not human; I am the devil himself. Everyone I touch contracts a horrible disease from which he will never recover. Please don't touch me."

We see from the above brief quotations that the psychotic tends to overvalue himself. As a great doer or as a sufferer, he is all-important. There is a tendency to ignore the views of others. There is a shrinkage of interest from one's duties, from one's responsibility and interest in the family, friends, and the world at large. This interest now centers entirely upon one's own thoughts. At times, the individual may doubt his own ideas, but as a rule comes back to them and accepts them firmly. Delusions take the place of logic and wishing supersedes work. Schilder.[7] Early in schizophrenia, active hallucinations and grandiose delusions are frequent. Later in the course of the disease, they decrease. There is an apparent poverty not only of normal perception but also of delusional ideas. Ultimately, over a period of years, deterioration sets in and in the final stage of dementia, there may be very little thought or action.

Disorientation as to time and place is most marked in the toxic psychoses. In such illnesses, there is a complete lack of realization of time and place and people and there is a replacement by fanciful stories of achievement called confabulations.

We must remember that most psychotic patients are capable of logical ideas along with their abnormal thoughts. It is only in the acute deliria that there is marked disorientation and only in dementia is the individual unable to express any logical ideas.

CAUSE AND MEANING OF PSYCHOSES

It is easier to describe symptoms than to account for them. The basic cause is as yet not known. One can at best offer but a working hypothesis. Yet we are justified in proposing such an hypothesis because it helps to clarify our thinking about these diseases and serves as a guide in the matter of treatment.

Psychoses are physical diseases. The lay public and many of the profession in the past have considered psychoses as brought about by the environment and due to peculiar thoughts. They have been considered psychogenic. The advanced knowledge in these diseases indicates that they are for the most part physical, even if not demonstrably organic. True, peculiar ideas are present in large numbers, but these are but symptoms of the illness, the same as are the physical complaints, and not the cause of the illness.

There are many psychoses and obviously a large variety of specific causes. We are all familiar with the obvious organic psychoses, for example arteriosclerotic dementia, brain changes due to syphilis, mental disorders in connection with brain tumor and brain injury. It is acknowledged that the group of mental illness called toxic psychoses represent a pathologic change in the brain cells due to deficiency disease, high fever, chemical and other toxic agents. As regards the cause of these illnesses, there is little dispute.

We come now to the group of manic-depressive illness. These, at first glance, appear to be psychogenic. Although one becomes readily depressed because of frustration, disappointment, and defeat, yet the prolonged and serious malady known as a depression is, in all likelihood, on a physical basis. It is connected with some cyclic bodily change,[8] perhaps intimately reflecting endocrine rhythm, although the concrete evidence is not yet available. Certainly the response of these illnesses to chemical and electrical methods speaks for a physical cause.

By far the larger group of psychoses is that which has been included in the concept of schizophrenia. Time may show that this is not a single disease but an assortment of a wide number of maladies. Some of them, particularly the paranoias, present basic elements that are psychogenic. The majority of the schizophrenias impress me as being physical illnesses: the early onset, the progressive, if somewhat disconnected, downward course, and the tendency to end in deterioration. This is a controversial subject and there are many conflicting views. Schilder, though a psychoanalyst, believed that schizophrenia was an organic disease. Elvidge and Reed[9] reported pathologic changes in certain glial cells. Katzenelbogen[10] reported frequent abnormalities in the spinal fluid. Hoskins[11,12] found a decreased oxygen metabolism in schizophrenia. These are but a sample of the many reports pointing to organic change. Many authors stress the importance of inherited tendency. The statement that schizophrenia may be a physical disease does not necessarily mean that it is an obvious structural malady. The disorder may be a toxic or electrochemical failure of cells, not histologically demonstrable.[13,14,15]

The explanation which has impressed me is as follows: With a lesion of the motor cortex or basal ganglia, involuntary tremors appear and skillful movements are reduced. We account for the defect in planned action and the appearance of unwanted activity by the hypothesis of a loss of inhibition and a failure of cortical control. As a parallel, we find that in schizophrenia there is a decrease in directed thought but an increase in hallucinations and delusions. It takes less brain activity to dream or hallucinate than to be observant and logical. This view acccords with the entire concept of thought and imagery presented in a scholarly book by Rosett.

THE COURSE OF PSYCHOSES

Every illness, particularly the mental diseases, has a life story, an introduction, progress, recovery or unhappy termination. As the obstetrician views pregnancy against a time measuring rod of nine months and correlates progress against this background, so the physician who approaches mental illness must consider the time factor. The symptoms of schizophrenia evolve over a period of time and go through changes. They do not appear in their complete form at any one time. The psychotic who comes to the doctor's office complaining of his heart or his head, acts in a strikingly different manner from the inmate of a state hospital after ten years' residence. Both have schizophrenia.

The onset of mental illness may be insidious or abrupt, partial or complete. Space permits but a brief mention of this subject here. At the outset, the symptoms are rarely advanced, frequently somatic, and may not interfere with the patient's ability to continue the routine of his daily activity. Only those with an abrupt onset become markedly disturbed early. Once schizophrenia has set in, it has a destiny towards a long and ultimately unfavorable termination. But this course is not usually a progressive decline. Like a road through the mountains which starts downwards, remains at a plateau, and then rises upwards only to descend later, so the progress in schizophrenia. There are periods of apparent recovery, then a recurrence of symptoms, and finally a more serious stage of the disease. It appears as though the cause of the disease does not operate with steady continuity or that the brain cells are able to offer some resistance for a short or longer period of time. This explanation is not far-fetched because we know that in an organic psychosis, like paresis, the illness frequently shows remissions in its downward course.

Towards the end stage of schizophrenia, we find marked deterioration. As mentioned above, there is then a shrinking both in interest and in the production of delusions. It may be mentioned here that in certain types of schizophrenia, namely the simplex and hebephrenic forms of dementia precox, the illness begins earlier in life (adolescence) and tends to pursue a more rapid and more steady decline to dementia.

The course of manic-depressive illnesses is fundamentally different. The onset may be abrupt. Once the disease has set in, it tends to continue, but with a remarkable tendency to spontaneous remissions and recurrences.

TREATMENT OF THE PSYCHOSES

It is the purpose of this paper to stress the modern therapies and therefore we will pass over quickly the symptomatic measures already well described in most textbooks, as well as the specific therapies such as malaria for paresis, high vitamins for deficiency psychosis, etc. We may then mention the modern methods of insulin, then metrazol, and now electro-coma for psychoses. The past decade has witnessed a remarkable change in attitude of physicians towards the treatment of mental disease. Pessimism has given way to hope, observation has led to action. The value of such aids as psychotherapy and recreational programs has been established. Psychoanalysis has proved its worth as a technique for explaining certain mental mechanisms, but it has not proved valuable as a therapeutic tool. A chemist may contribute much to a knowledge of the elements of which a sample of ore is composed, but this procedure does not bring the deposit from the mine. Obviously, psychoanalysis could not be effective in the face of a physical disease.

The approach to treatment which has proved significant has been labeled "shock therapy". Insulin was the first of these measures and it brought about larger percentages of recoveries than had hitherto been achieved.[16,17,18,19,20] The results were better in early cases and were less favorable in the advanced stages. Furthermore, as has been shown by Strecker and his associates, a follow-up of the reported patients has shown a steady tendency to recurrence over a period of five years. These two factors indicate clearly the inherent tendency of the progressive nature of many types of schizophrenia.

Metrazol was next introduced as a treatment for psychoses.[21,22,23,24,25,26] This method, originally used primarily for schizophrenia, established a field of usefulness in the manic-depressive group. As an outgrowth of metrazol convulsive therapy came the most recent step, electro-coma therapy.

This method is being applied to many forms of the psychoses: the large group of schizophrenias and the manic-depressive illnesses. The technique of this treatment has been presented by many authors.[27,28,29,30,31,32,33,34] Suffice it to say that the method has had practically no mortality and is tolerated by patients better than other techniques. It has certain complications, among which are periods of amnesia and the possibility of fractures. The electro-coma method has been successful in achieving recoveries in a large percentage of depressed patients. It has been of some value in schizophrenia, enough certainly to warrant its continued use. This recommendation is made in the face of the above stated theory that schizophrenia may be a physical illness. Apparently the chemical and electrical changes induced in the brain by the electrical current produce an improved brain function. In the chronic, seriously affected schizophrenics, this improvement is transitory. Yet, a sufficient number of schizophrencies do show a splendid change for the better. The following case history will illustrate such a favorable result:

Mrs. R. F., age 45, became ill five years previously. At first irritable, then withdrawn, she stated that voices talked to her, mocked her thoughts. They accused her of stupidity and immorality. The voices plagued her incessantly so that she demanded her own death. Physical symptoms were few, but fixed delusional ideas prevailed. This patient had been under the care of several psychiatrists in Chicago and Cleveland, all of whom diagnosed her illness as schizophrenia. Several of the men who discussed her illness with me considered the prognosis as poor.

This patient was given a course of insulin shock treatment, with little change. Electricity was then tried as a measure of last resort. With the seventh and eighth coma reactions, an almost magical change took place. Mrs. R. F. said she was free of voices, she became somewhat animated, chatted cheerfully with her fellow patients. From day to day she stopped "listening and looking for messages from without", and busied herself usefully in the ordinary tasks of life. Mrs. R. F. left the hospital some six months ago. She has continued to make progress and has been able to assume responsibility in the world at large.

There may be some difference of opinion about the diagnosis in view of this remarkable change. The label is academic; the result is practical and significant.

The larger group of serious depressions offers the best field for electro-coma therapy. The return to normal in the depression group is one of the most remarkable experiences in psychiatry. A patient in the late fifties becomes more and more inactive. It may be a woman who accuses herself of wrongdoing, is unable to meet her responsibilities, loses appetite, and loses all interest and joy in activity. She is wretched physically, tormented by aches and pains; she is unable to sleep, but paces back and forth wringing her hands and moaning; she wishes for death as an escape, and perhaps thinks of or plans suicide.

The duration of such an illness has been long, average one year, and therapy difficult.[35,36] Today, however, the duration of the illness may be shortened and remarkable improvement achieved in a matter of weeks. Electro-coma therapy has, in my experience, been successful in some 90 per cent of the patients who belong in the melancholia group. At first, the patient may show dulling of consciousness and marked forgetfulness. But like clouds which move away with the wind, leaving sunshine, so this amnesia disappears and our patient becomes cheerful, talkative, confident. Within three to six weeks, this same person now sleeps soundly, is physically comfortable, and actually has a sense of well-being. Here again, certain chemical changes effected by the treatment have altered the course of the illness and brought about a recovery.

The mechanism of recovery in the psychoses is not known. It is believed to be a chemical or electrical alteration in function of the brain, not the influence of fear or reasoning. Electro-coma quite uniformly brings about an improvement in all the symptoms: somatic complaints, behavior, and ideas. This improvement may be temporary in the chronic psychoses, but is often lasting in the earlier cases and in the depressions. The permanence of the recovery depends not so much upon the treatment as upon the inherent destiny of the disease. The serious schizophrenias with a tendency toward deterioration recur and offer a poor prognosis regardless of the therapy. Furthermore, conservatism warrants the statement that a certain interval of time must elapse before a scientific appraisal of the new methods can be established. But the practicing physician who sees an acute mentally ill patient today must advise therapy at the moment. The illness cannot wait a decade, even if the ultimate appraisal must be postponed. The physician must weigh the immediate hazards and the potential late effects of electro-coma treatment against the distress and danger of watchful waiting. In my own experience, the advantages far outweigh the difficulties.

CONCLUSION

It is the theme of this paper that the psychoses are largely organic diseases, even though they show emotional and psychic symptoms. In a brief manner, the symptoms are considered under three major headings: somatic complaints, behavior disturbances, and ideational abnormalities. One may better understand psychoses if the illnesses are not faced as unknown mysteries, but considered against the background of these three groups of symptoms. It was pointed out that the symptoms must also be evaluated in the light of the course of the illness.

A brief mention of the newer "specific therapies" has been included. Emphasis is placed upon the modern use of electro-coma therapy and its remarkable value particularly in the depressions as well as its use in schizophrenia.

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Coarctation of the Aorta

A case of adult type of coarctation of the aorta not associated with any other congenital lesion is presented in a male of 50 years of age who showed right axis deviation in his electrocardiogram and a markedly dilated and hypertrophied right heart. The patient had shown signs and symptoms of a left ventricular failure to be expected with coarctation of the aorta and associated arterial hypertension. Hence, after ruling out many pathological entities at post mortem, it was concluded that his right ventricular failure with right axis deviation of the electrocardiogram and hypertrophied right heart must have been a natural sequence from the left ventricular failure.—Hugh Stalker, M.D., F.A.C.P., Detroit; Jour. Mich., S.M.S., Vol. 41, No. 1, January, 1942.

Poisoning Due to Methyl Salicylate (Oil of Wintergreen)

A Report of a Case with Autopsy*

I. S. EPSTEIN, M.D., and JOHN L. WORK, M.D.

At least 53 cases of poisoning, with 32 fatalities, due to methyl salicylate have been recorded.[1,2,3,4] Half of the fatal cases have been children. Death has occurred in infants after the ingestion of amounts as small as 4. cc., and in adults after 6. cc. Despite these reports, it is doubtful that the toxic properties of this drug, as contrasted with those of the other salicylates, are sufficiently appreciated by the profession, and the drug is still dispensed freely to the laity in preparations which are not labelled "poison."

The following communication makes no attempt to review the literature and does not purport to be a comprehensive discussion of the subject. It is merely the record of a case, presented as another warning that methyl salicylate when taken internally is a deadly poison.

REPORT OF A CASE

Clinical Summary: L. G., a four-year-old white boy was brought to the emergency room of the St. Alexis Hospital at 10:00 P.M. on April 20, 1941, complaining of nausea and pain in the abdomen. At 5:00 P.M. of the same day the child had taken approximately two tablespoonfuls of an oil of wintergreen rubbing mixture being used by another member of the family. Immediately following this the boy vomited. He was then given a glassful of sodium bicarbonate solution which he also vomited. Because an examination at this time revealed no abnormal findings, he was sent home with instructions to force fluids. He was brought back to the hospital at 8:30 A.M. on the following day. The mother stated that he had vomited frequently and had been extremely restless during the night, that he had appeared to breathe rapidly and had complained severely of abdominal pain.

Physical examination revealed an acutely ill, irritable and restless child who was definitely cyanotic, breathing rapidly and with difficulty. The pulse rate was 140 and the respiratory rate was 64 per minute. The lungs were clear and the heart was normal except for the rapid rate. The ears, nose and throat were normal. The superficial and deep reflexes were all normal. There was no neck rigidity, and no positive Kernig or Brudzinski. The temperature on admission was 100.4° F.

Examination of the blood revealed 4,250,000 erythrocytes and 10,000 leucocytes per cu. mm., with a hemoglobin content of 10.0 Gm. per 100. cc. (Sahli). A routine urinalysis revealed no significant abnormal results. Tests for salicylates were not requested.

The child was immediately given 3¾ gr. (0.25 Gm.) of caffein sodium benzoate subcutaneously and was placed under an oxygen tent. A saline enema was then given and 200 cc. of 5 per cent glucose in normal saline solution was administered intravenously. Fluids were urged by mouth, and doses of 10. gr. (0.6 Gm.) of sodium bicarbonate were ordered to be given every four hours. During the entire course the child was irrational and had intermittent, generalized convulsions. The respirations continued to be rapid and labored, and the cyanosis persisted. There was marked pallor of the skin and frequent twitchings of the facial muscles. Despite further restoratives, the child's condition became rapidly worse, and he died at 12:15 P.M. on April 21, 1941, four hours after admission and 19 hours after the ingestion of the oil of wintergreen. The clinical diagnosis was methyl salicylate poisoning.

The Authors

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- Dr. Work, Cleveland, Ohio, is a graduate of College of Physicians and Surgeons, Columbia University, 1935; diplomate, American Board of Pathology; pathologist, St. Alexis Hospital, Cleveland.

Autopsy Disclosures: (Autopsy No. 226, performed two hours after death). The body was that of a normally developed and nourished white boy, approximately four years old. There was mild cyanosis, evident in the lips and nail beds. There was marked dehydration of the tissues. The pupils were equal and measured 4. mm. in diameter.

The unfixed brain weighed 1,375 Gm., approximately 200 Gm. in excess of the expected weight (1,191 Gm.)[5] for a child of four years old. It appeared swollen and had a boggy consistency. There was intense hyperemia of the pia-arachnoid and the surface of the brain was deep pink. The gyri were flattened and the sulci between them were almost completely obliterated. Sections showed a relatively thick cortex with sharp demarcation between the gray and white matter. There were no gross hemorrhages present. In microscopic sections through the cerebral cortex, the cerebellum and the medulla there was hyperemia, chromotolysis of the nerve cells, distention of the Virchow-Robin and perinueronal spaces and apparent separation of the fibers. There were no areas of necrosis, inflammation or hemorrhage.

The heart was of normal weight. There was slight dilatation of the right ventricle and numerous petachiae were present in the epicardium. There was mild edema of the lungs, patchy superficial atelectasis and few small focal hemorrhages in the parenchyma. The liver and spleen showed no significant changes. The right and left kidneys weighed 35. and 50. Gm. respectively (expected weights—58. and 56. Gm.).[5] Grossly and microscopically they showed only cloudy swelling. The urinary bladder was empty so that no urine was obtained for analysis. There was a foreign body, identified as the eraser of an ordinary lead pencil, in the esophagus. The mucosa of the stomach was stippled with few small hemorrhages, but was otherwise normal. The cavity contained thick gray mucinous fluid and floculent, cheesy masses resembling milk curds. No odor of methyl salicylate was detected. The intestines were normal except for incomplete rotation and fixation of the cecum. The thymus weighed 34. Gm. (expected weight—22.98 Gm.).[6] The lymph nodes comprising all groups were large, but were considered normal, both grossly and microscopically.

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Although chemical proof was lacking, the case was indexed as one of methyl salicylate poisoning with the following anatomical diagnoses: edema and hyperemia of the brain; focal hemorrhages in the epicardium, lungs, and gastric mucosa; edema of the lungs, mild; partial atelectasis of the lungs; cloudy swelling of the kidneys and dehydration.

DISCUSSION

Vomiting is an early symptom of methyl salicylate poisoning and can be marked and persistent, producing severe dehydration with the development of marked thirst. As the intoxication progresses to its more alarming aspects, the skin becomes flushed and the patient becomes restless and irritable. The respirations become rapid and labored, almost Kussmaul in type, and there is usually persistent cyanosis. The patient generally grows drowsy and stuporous and even lapses into coma. Convulsions commonly occur before death.

Laboratory studies reveal a leucocytosis, an increase in the non-protein nitrogen of the blood, and an elevation of chloride values. The carbon dioxide combining power is usually markedly reduced, and it is this lowering of the total base which makes therapy so difficult in the later stages. The urine may contain acetone, albumin, and casts in varying amounts, and occasionally sugar which, as has been pointed out,[1] may make it difficult to distinguish this condition from the late stages of diabetic coma. In those cases in which they have been made, tests for salicylates in the urine usually have been positive.

Treatment must be early and vigorous. Every attempt must be made to eliminate the drug from the body by frequent and thorough gastric lavage with sodium bicarbonate solution. Large quantities of fluid by mouth, if possible, and in cases of severe vomiting, 5 per cent glucose in normal saline should be administered intravenously. For more advanced cases in which acidosis is already present, treatment must be more vigorous and persistent since it is this stage which is so resistant to therapy. Alkalis should be forced by mouth in addition to fluids. Ringer's or Hartmann's solution should be given intravenously. Frequent enemata aid in washing the drug from the colon. If the patient is cyanotic and dyspneic, the oxygen tent and cardiac stimulants should be employed. Alcohol sponges and morphine should be used if the patient has fever and is extremely restless. The morphine also serves to quiet the rapid and labored respirations. As the patient improves the treatment should be discontinued gradually, and even after apparent recovery, careful observations should be made for indications of a relapse. The acidosis occurring in this condition is characteristically very resistant to therapy, and it is important to commence vigorous treatment before this stage has supervened.

Death is usually the result of acidosis and respiratory depression, and the autopsy disclosures are those of asphyxia, rather than those of any specific effect of the drug.

SUMMARY

Another case of methyl salicylate poisoning in which death occurred after the ingestion of approximately 30 cc. of an oil of wintergreen rubbing compound is described. It is presented as an additional warning of the serious toxic effects of the drug, with the hope that the necessary steps will be taken to require the proper labeling of preparations sold to the public as counter irritants.

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Corn Dermatitis

Corn dermatitis, or "corn rash" so-called, is apparently limited to the workers in the corn canning industry. The exact cause is not known. In view of the known relationship between poison ivy and poison oak and inflammations of the skin, and the similarity of these lesions to those of corn dermatitis, it seems rational to inquire into a corn-skin inflammation relationship.

Corn dermatitis seems to be the result of a specific skin sensitivity.

Direct contact is the exciting factor, with a few exceptions.

Wet corn increases the severity and number of the cases of dermatitis.

Most of the dermatitis occurs on the arms, hands, knees, face, neck, and thorax.—Robert B. Tudor, M.D., Hibbing, Minn.; The Journal-Lancet, Vol. LXI, No. 11, November, 1941.

Stilbestrol: Use in Female Surgical Castrates

KENNETH C. SHARRETTS, M.D.

DODDS, Goldberg, Lawson, and Robinson, in 1938 synthesized a new chemical substance which they named stilbestrol (diethrol, diethyl-stilbestrol). The biological effect of this substance was studied on animals and later on human beings, and its estrogenic properties observed. Since publication of their studies, the authors and many other observers have studied further the pharmacology, biological activity, toxicity, clinical therapeutic value, and potential carcinogenic influence of the drug. On numerous points there is still difference of opinion. The purpose of this paper is to present our experience with the use of stilbestrol in a series of 44 female surgical castrates. Before operation all patients were in a sexually active stage of life. Three patients were probably at the beginning of menopause, but are included because their menopausal symptoms became greatly exaggerated shortly following operation.

The data collected are purely of a clinical nature. The investigation was carried out in the routine clinic work; no detailed laboratory studies were made.

DOSAGE

A study of the existing literature reveals much diversity of opinion on the matter of dosage. Wenner, Robert and Karl suggest 5 mgms. of stilbestrol for five doses, making a total of 25 mgms. In their series of nine cases, this resulted in (1) bringing the atrophic endometrium to a proliferative stage, as shown by endometrial biopsy, (2) enlargement of the uterine canal, as measured by a uterine sound, and (3) mitigation of headache, hot flushes, pruritis vulvae and leucoplakia. In one case there was vomiting, in two, nausea and malaise. On a percentage basis, this is about the same ratio of toxic reactions as occurred in the present series. The authors also state that a smaller dose, namely 15 mgms., administered hypodermically is equally effective.

Winterton and McGregor report the use of stilbestrol on 51 patients with various gynecological conditions, none of whom were surgical castrates. They found the drug as effective as the naturally occurring estrogens. The dosage they recommend is 1 to 3 mgms. by mouth daily, and up to 5 mgms. intramuscularly three times a day. The last named dose is an unusually large one.

The Author

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In our series, as little as 3 mgms. intramuscularly was almost routinely followed by nausea and vomiting. Varangot had good results with 1 to 2 mgms. by mouth per day. He states that prolonged use of stilbestrol is contraindicated because of its toxicity. Buxton used from 1 to 30 mgms. per day orally. His clinical findings as to the drug's efficacy were essentially the same as in other series. In addition, the use of liver function tests and other laboratory studies showed that demonstrable toxicity occurred in only one out of 17 cases. This patient developed mild albuminuria following severe nausea and vomiting.

Schorr and Papanicolaou, report 44 gynecological patients, given 2 to 4 mgms. daily by mouth. They found a very high percentage (80 per cent) of toxic reactions—nausea, vomiting, etc. In analyzing their report, however, one cannot help but wonder if some of the reactions they mention, namely, lassitude, vertigo, etc., might not have been associated with the menopause, rather than with the ingestion of the drug. They also performed liver function tests. The results were suggestive of hepatic toxicity, but by no means conclusive according to the authors' own statement.

Our methods of administration varied. The earlier cases were given weekly injections of from 1 to 3 mgms. It was found that with 1 and 2 mgms. the effect did not last from one week to the next, and with 3 mgms. per dose, there was a high percentage of nausea and vomiting. Therefore, we changed to the oral route—giving 1 mgm. two or three times a week. Later, this was increased to 1 mgm. per day, then to 2 mgms. per day and, finally, to 1 mgm. three times a day, taken with or after the meals. Reactions were diminished by this method.

For the sake of brevity, our results are summarized in the following tables. The age of the patients varied from 22 to 51 years, the average

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*From the Department of Surgery, College of Medicine of the University of Cincinnati, and The Cincinnati General Hospital.

Submitted December 11, 1941.

age being 35.1 years. There were 28 colored women and 16 white women in the series.

Preoperative complaints were as follows:

Menorrhagia	19
Pain (pelvic or quadrant)	18
Dysmenorrhoea	12
Backache	12
Mass in Abdomen	9
Metrorrhagia	3
Constipation	3
Urinary Symptoms	3
Leucorrhoea	3
Flushes and Nervousness	3
Irregular periods	2
Uterine Prolapse	2
Miscarriages	1
Sterility	1

The operations were as follows:

Supracervical hysterectomy with bilateral Salpingo-öophorectomy	27
Panhysterectomy with bilateral Salpingo-öophorectomy	7
Bilateral Salpingo-öophorectomy	3
Hysterectomy with one Salpingo-öophorectomy	7
Appendectomy	17

Pathological Findings—Microscopic and Gross:

Myomata Uteri	27
Chronic Salpingitis	23
Ovarian Cyst	12
Tubo-ovarian Abscess	8
Endometriosis	5
Papillary Cystadenoma of Ovary	1

Time Interval between Operation and Onset of Menopausal Symptoms (or onset of increased symptoms):

1 month	16
2 months	9
3 months	4
4 months	6
5 months	3
6 months	3
12 months	1
2 years	2

Symptoms of Menopause:

Hot flushes	44
Nervousness	15
Insomnia	10
Headaches	9
Anorexia	3
Vertigo	3
Decreased Libido	3
Fatigue	2
Depression	1
Vomiting	1
Sweats	1
Pruritis	1

Total Dosage:

Less than 20 mgms.	11
20 - 30 mgms.	5
30 - 40 "	12
40 - 50 "	3
50 - 90 "	4
90 - 100 "	5
120 - 130 "	2
160 - 170 "	1
224 mgms.	1

Duration of Treatment:

Less than 1 month	6
1 month	9
2 months	8
3 months	8
4 months	3
5 months	1
6 months	2
7 months	3
*8 months	1

* This patient had irregular treatment, as did one patient in each of the 4 and 6 months group.

Reactions and Untoward Effects:

None	24
Nausea and vomiting, mild	9
Nausea and vomiting, severe	3
Nausea alone, or with headaches	5
Enlargement of breasts	1
Anorexia	1
Vertigo	2

Results:

Excellent	8
Good	22
Fair	5
Poor	7
Unrecorded	2

The following criteria were used in recording the results tabulated above.

Excellent—A complete subsidence of symptoms and no reaction to the drug.

Good—Marked improvement of menopausal symptoms with only slight or no reaction to the drug.

Fair—Some improvement and a reaction to the drug which may have been distressing to the patient, but not severe enough to discontinue the drug in view of the improvement in symptoms. Usually when interviewed, the patient stated that although the medicine caused her some, or even great distress, she still preferred to take it as it was helping her menopausal symptoms.

Poor—All patients who derived no benefit from the drug, or had too severe a reaction to it to warrant its continuance.

DIHYDRO-DIETHYL-STILBESTROL

Five of the patients in the poor-results group and in addition five patients not included in this series, have been given a more recently developed substance, dihydro-diethyl-stilbestrol (dihydrodiethrol). Insufficient data are at hand to warrant a report at this time. However, it may be that this altered form of stilbestrol will prove to be as efficacious as stilbestrol and yet less toxic.

VAGINAL SMEARS

A few cases were followed by vaginal smears, using the method of Papanicolaou. Smears were studied in only 11 cases and obviously there is not enough data from which to draw conclusions. However, it did seem to us that there was little correlation between the follicular phase of the vaginal epithelium and the symptomatic improvement of the patient. In some patients the pre-follicular type of smear was associated with excellent clinical results. On other occasions a good follicular type of vaginal epithelium developed under treatment with stilbestrol, but little or no improvement in the menopausal symptoms took place. These findings coincide with those of Shorr, Robinson, and Papanicolaou, who state that there is no necessary correlation between the symptomatic improvement and the extent of the smear change when stilbestrol is used. In this respect stilbestrol differs from the naturally occurring estrogens. In 1936 Papanicolaou and Shorr, using ovarian follicle hormone for treatment of menopause, stated almost invariably the optimum smear change is accompanied by maximum relief.

COMMENTS AND CASE REPORTS

Although this report comprises a fairly large number of cases, it is difficult to draw conclusions without considering the individual patient. Stilbestrol admittedly carries with it the danger of untoward reaction. Although unfavorable reactions are encountered when using stilbestrol, it is also true that some patients are unable to tolerate any drug. The following case is an instance:

Z.T. (89847), a 27-year-old white female had severe dysmenorrhoea, with continuous and incapacitating abdominal and pelvic pain. After a long period of conservative treatment, including sitz baths, douches, diathermy and bed rest, without improvement, a laparatomy was done on April 15, 1940. She was found to have what had been clinically apparent—chronic salpingo-öophoritis and severe cervicitis. Panhysterectomy and bilateral salpingo-öophorectomy were done. One moth later she had developed anorexia, nervousness and increasingly severe hot flushes. She was given 1 mgm. of stilbestrol per week intramuscularly. A month later little improvement of her menopausal symptoms had occurred and the dose was changed to 1 mgm. orally three times a week. She received a total of 44 mgms. over a period of four months. The patient developed severe nausea and vomiting following ingestion of the drug. The hot flushes had decreased somewhat under oral therapy. However, the nausea and vomiting were so severe that the drug was discontinued. Because of her nervousness, she was given luminal and later a bromide preparation. She developed skin rashes as a result of both of these drugs. Ovarian extract orally, and later, Theelin intramuscularly were tried, with no relief of her menopausal syndrome. Ultimately, this patient was controlled with 2000 units of Senestrin three times a week. A single examination of her vaginal epithelium while under stilbestrol therapy revealed a well developed follicular type epithelium.

The gastric disturbances which sometimes occur when stilbestrol is used may be minimized by taking the drug with meals—as is shown by the following case:

I.P. (101976), a 44-year-old white woman complained of pelvic pain, metrorrhagia, and mild intermittent flushes. Examination revealed bilateral tubo-ovarian masses. On July 7, 1939, a left öophorectomy was done. The right tube and ovary had been apparently obliterated by an old infection, now quiescent, and were left in place in hope that the ovary still functioned to some degree. By January, 1941, she had developed severe menopausal symptoms consisting of nervousness, insomnia and hot flushes. It was believed that this patient had a combination of surgical, infectious and natural obliteration of her ovarian function. She was started on 1 mgm. two times a day of stilbestrol. This was later supplemented by a 1 mgm. intramuscularly two times a week. She received a total of 127 mgms. of stilbestrol over a period of two months. The hot flushes all but disappeared and the insomnia and nervousness were negligible. Nausea occurred at first, but this disappeared when the patient on her own initiative took both daily tablets immediately after her large meal of the day.

A few cases in the series noted improvement of the hot flushes, but a persistence of other menopausal symptoms:

D.D. (124735), a 33-year-old colored woman complained of backache and abdominal pain. Examination revealed myomata uteri and chronic salpingo-öophoritis. On November 25, 1940, a supracervical hysterectomy, bilateral salpingo-öophorectomy, and appendectomy were carried out. One month later she developed severe hot flushes, nervousness, insomnia, and headaches. On February 1, 1941 she was given 1 mgm. of oral stilbestrol daily and after 30 mgms. the flushes and insomnia had completely disappeared. Slight nervousness and an occasional headache persisted. Treatment is being continued.

It has been stated that one of the contraindications to the use of stilbestrol is its toxicity and that in such a condition as the menopause treatment must be continued over a long period of time (Varangot). It is, of course, well known that in surgical menopause, although the condition may be severe, generally it does not continue for more than a few months. The following case may be used as an example:

L.A. (133653), a 31-year-old colored woman, complained of prolonged menstrual periods, abdominal pain, and backache. Examination revealed myomata uteri, and bilateral tubo-ovarian chronic inflammatory masses. On November 24, 1939, a hysterectomy and bilateral salpingo-öophorectomy were done. In March, 1940, four months later, she developed severe hot flushes, at least once a day. She was given 1 mgm. of stilbestrol intramuscularly once a week. This was increased to 2 and 3 mgms. after two months because of insufficient response. The flushes had lessened in severity, but were still disturbing. Because of nausea and vomiting, after each injection of the higher dosages, she was changed to oral stilbestrol, the dose being 1 mgm. three times weekly. In all, the patient received 52 mgms., 16 intramuscularly and 36 orally. By October, 1940, seven months after treatment started, all flushes had ceased and she felt well. Examinations of the vaginal epithelium showed a grade IV (follicular phase) and grade III (prefollicular phase) on June 17, 1940, and June 24, 1940, respectively. Treatment was stopped and after two months the patient has had no return of her menopausal symptoms.

CONCLUSIONS

It is generally agreed that stilbestrol, like the other estrogens, is not an innocous substance. That it is an effectual estrogenic-like drug, our observations, as well as those of many others, demonstrate clearly. Moreover, it costs considerably less than the naturally occurring eostrogens. A few investigators advise only limited use of stilbestrol on account of its toxicity. Others fear the possibility of a carcinogenic property, a fear not well founded upon convincing observation. These dangers are counterbalanced by the effectiveness of stilbestrol in relieving the very distressing symptoms of the artificial menopause.

SUMMARY

1. Forty-four female surgical castrates with severe post-operative menopausal symptoms were treated with stilbestrol.

2. The optimal dose was found to be 2 or 3 mgms. orally per day, taken as 1 mgm. dose with the meal In some cases this dosage was supplemented by giving 1 mgm. per week intramuscularly.

3. In general the results have been satisfactory, and equally as good as those obtained with the naturally occurring estrogens.

4. In hospital practice and to a large extent in private practice the relative cheapness of the drug is an important consideration.

Acknowledgments:—The oral and intramuscular diethylstilboesterol used in this series was generously supplied by the Wm. S. Merrell Company of Cincinnati.

I wish to thank Dr. Francis Woods and Dr. Stuart A. Schloss for their assistance in collecting the data in the clinic.

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The Friedmann tuberculosis remedy has been rejected after decades of careful investigation by experienced specialists in tuberculosis (Munchen. med. Wchnschr. 88:512, April 25, 1941). In the "Friedmann law suit" the worthlessness has been corroborated on the basis of detailed reports of qualified experts. The followers of Friedmann now use the old Friedmann remedy again under the new name of "utilin." The board of directors and the advisers of the German Tuberculosis Society unanimously reject the application of "utilin."—Jour. Amer. Med. Assn., July 19, 1941.

Afebrile Rheumatic Fever

Report of a Case

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Because this case of acute rheumatic fever, typical in all other respects, never manifested any elevation of temperature, I am reporting it. One suggestion was to the effect that this patient's heat centers might have been completely subjugated for some time. This, however, is not a fact because in February, 1940, this patient suffered an infection in the left nasal ala, at which time his temperature rose to 104.5 degrees.

B.M., age 26, was seen in the morning of September 25, 1941. He was lying quietly in bed with a facial expression that is expected in a seriously ill individual. Large beads of sweat covered his forehead and extended downward to the nasal ala. The throat was somewhat injected and short chain streptococci were found on culture. There were no palpable glands in the neck. The carotids were distended and were visably pulsating. Superficial examination of the chest revealed increased precordial activity. The heart tones were rapid but regular, rate 110. No murmurs were audible at that time. There appeared to be no cardiac enlargement. The abdomen was negative on examination. The joints of both hands were markedly swollen and red. Every articular surface appeared to be involved. The right foot was similarly affected. These structures were excruciatingly tender and the patient winced at even the suggestion of digital manipulation. His oral temperature was 98 degrees at that time; rectal temperature 98 2/5 degrees. Several other thermometers were procured and identical readings obtained. The temperature was taken at regular three hour intervals and when charted revealed an absolutely straight line through a three-week period of observation. The acute joint manifestations subsided in two weeks.

The blood count on the first day of the acute illness revealed a red blood count of 5,200,000, white count of 18,000, with a hemoglobin of 80 per cent. The differential count showed 40 per cent polymorphonuclears, 56 per cent lymphocytes, 2 per cent monocytes, and 2 per cent eosinophiles. Sedimentation rate 55 per cent.

On September 29, the red blood count was 3,300,000, white count 15,000, and the hemoglobin 60 per cent. The sedimentation rate was 50 per cent. On October 2, the sedimentation rate was 20 per cent; Wasserman negative. On October 27, the count was normal and the sedimentation rate 12 per cent. On this date the only sequela of his illness was a pulse rate of 100 and a slight systolic mitral murmur. The murmur has persisted to date (November 5, 1941) and the pulse rate has dropped to 72. On the fifth day of the illness the electrocardiographic tracing showed a delayed A V conduction time of 0.24 second.

It seems to me that the importance of this case is that during the several days when the patient was acutely ill in an afebrile state, he could very easily have been permitted to leave his sick bed, and as a result acquired a serious cardiac injury.

Sulfathiazole and Sulfapyridine in the Treatment of Pneumococcic Pneumonia

CURTIS F. GARVIN, M.D.

THE comparative effectiveness and toxicity of sulfathiazole and sulfapyridine in the treatment of pneumococcic pneumonia at Cleveland City Hospital from January to June, 1940, has been reported.[1] The corrected mortality for the sulfathiazole-treated group was 10.3 per cent and for the sulfapyridine-treated group 8.9 per cent, a difference which was not significant. Sulfapyridine brought the temperature down to normal more rapidly but a secondary rise was more common. The length of stay in the hospital was the same in both groups, seventeen and four-tenths days. It was found that approximately twice as much sulfathiazole as sulfapyridine was required to maintain an average concentration of 5 to 6 mg. of free drug per hundred cubic centimeters of blood. Sulfathiazole caused less vomiting but more crystals in the urine. Otherwise toxic manifestations were not significantly different.

During the year from July, 1940, to June, 1941, inclusive, observations upon the value of sulfathiazole and sulfapyridine in the treatment of pneumococcic pneumonia have been continued. By a method of alternate treatment, 43 patients with typed pneumococcic pneumonia were treated with sulfathiazole and 42 with sulfapyridine. One or more blood cultures, roentgen films of the chest, repeated blood counts, urinalysis and determinations of the free drug in the blood were made for every patient.

DOSAGE

Sulfathiazole—The initial dose of sulfathiazole was 4 Gm. by mouth, followed by 2 Gm. every four hours until the temperature was normal for two to three days and clinical improvement was definite. The average dose for the patient who lived was 53.9 Gm. in four and a half days, or about 12 Gm. per day. This dose produced an average level of 4.7 mg. of free sulfathiazole per hundred cubic centimeters of blood.

Sulfapyridine—The initial dose of sulfapyridine was 2 Gm. followed by 1 Gm. every four hours until the temperature was normal for two to three days and clinical improvement was established. The average total dose for the patients who lived was 40.5 Gm. in six and four-tenths days, or 6.3 Gm. per day. This dose produced an average concentration of 5.4 mg. of free sulfapyridine per hundred cubic centimeters of blood.

Intravenous administration of the sodium salts of both drugs was employed when necessary. With both drugs, sufficient fluids were given to each patient to insure a urinary output of 1500 cc. per day.

COMPARISON OF THE PATIENTS IN THE TWO GROUPS

The average age of the patients treated with sulfathiazole was 43.1 years and that of the patients treated with sulfapyridine 42.4. Treatment was begun on the four and three-tenths day of the disease in the sulfathiazole-treated group and on the four and seven-tenths day in the sulfapyridine-treated group. An average of 1.4 lobes was involved in the patients receiving sulfathiazole and 2.0 lobes in those receiving sulfapyridine. Concurrent disease known to have an unfavorable influence on the course of pneumonia was present in 10 of the 43 patients who received sulfathiazole and in 20 of the 42 patients who received sulfapyridine. Twenty-three extremely ill patients (8 in the sulfathiazole-treated group and 15 in the sulfapyridine-treated group) received specific antipneumococcus serum intravenously in addition to chemotherapy. There was no significant difference between the two groups as to sex and color.

THERAPEUTIC RESULTS

The therapeutic results are tabulated in table 1. There were five deaths in the group treated with sulfathiazole (table 2) and eight deaths in the group treated with sulfapyridine (table 3). Exclusive of the patients who were moribund on admission and died within 24 hours, the corrected mortality is 7.3 per cent for the sulfathiazole-treated group and 10.5 per cent for the sulfapyridine-treated group.

Of the patients treated with sulfathiazole, 15.8 per cent had a normal temperature within 24 hours, an additional 18.4 per cent within 48

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hours, and an additional 18.4 per cent within 72 hours (total—52.6 per cent). Of the patients treated with sulfapyridine, 20.6 per cent had a normal temperature within 24 hours, an additional 23.5 per cent within 48 hours, an additional 17.6 per cent within 72 hours (total—61.7 per cent). On the average, the temperature reached normal on the four and nine-tenths day in the sulfathiazole-treated group and on the four and four-tenths day in the sulfapyridine-treated group.

The average number of hospital days for patients who had had sulfathiazole was 20.3 days, and for those who had had sulfapyridine, 22 days.[2]

COMPLICATIONS

In the group treated with sulfathiazole, pleural effusion occurred in one patient, empyema in

TABLE I

Distribution of Types, Bacteremia, and Mortality

	Sulfathiazole Treated Group				Sulfapyridine Treated Group			
	All Patients		Patients with Bacteremia		All Patients		Patients with Bacteremia	
TYPE	Number	Died	Number	Died	Number	Died	Number	Died
I	10	----	2	----	8	4	3	2
II	7	2	3	2	8	1	----	----
III	7	1	1	----	11	3	3	2
IV	5	----	1	----	3	----	----	----
VI	----	----	----	----	1	----	----	----
VII	5	2	3	1	3	----	----	----
VIII	4	----	----	----	3	----	1	----
IX	1	----	----	----	----	----	----	----
X	----	----	----	----	1	----	----	----
XII	1	----	----	----	----	----	----	----
XIV	1	----	----	----	----	----	----	----
XVIII	1	----	1	----	1	----	----	----
XIX	----	----	----	----	1	----	----	----
XX	1	----	----	----	1	----	1	----
XXIV	----	----	----	----	1	----	----	----
Total	43	5	11	3	42	8	8	4
Mortality Per Cent	11.6		27.3		19.0		50.0	
Corrected Mortality Per Cent*	7.3		20.0		10.5		33.3	

*Six patients (two treated with sulfathiazole and four treated with sulfapyridine) who died within 24 hours after admission are excluded; three of these patients had bacteremia (one treated with sulfathiazole and two treated with sulfapyridine).

TABLE II

Analysis of Causes of Death in the Sulfathiazole-Treated Group*

No.	Age	Day of Disease Treatment Begun	Type	Blood Culture	No. of Lobes Involved	Total Dose of Drug, Gm.	Total Amount of Serum, Units	COMMENT
1	68	6	VII	Positive	1	44	400,000	Coronary artery disease; hyperthyroidism; auricular fibrillation; temporary response to treatment; autopsy; lobar pneumonia, left lower lobe, organizing.
2	57	7	VII	Negative	2	66	200,000	Temporary response to treatment—then extension; no autopsy.
3	52	14	II	Positive	5	66	400,000	Chronic alcoholism; autopsy: extensive bilateral organizing pneumonia.
4	49	7	II	Positive	2	4	----------	Moribund on admission; death in 6 hours; autopsy: lobar pneumonia, right upper and lower lobes.
5	52	4	III	Negative	1	8	----------	Moribund on admission; death in 14½ hours; no autopsy.

* The autopsies were performed by members of the staff of the department of Pathology of Cleveland City Hospital; Division Chief, Dr. H. T. Karsner.

three, and slow resolution in one. In the group treated with sulfapyridine, pleural effusion occurred in two patients.

TOXIC REACTIONS

Nausea and vomiting were the most frequent toxic reactions, and were encountered less often in the sulfathiazole-treated group (30 per cent as compared to 50 per cent). Crystals of the drug were found in the urine in 39.0 per cent of the patients receiving sulfathiazole and 28.9 per cent of those receiving sulfapyridine. The incidence of microscopic hematuria was 14.6 per cent for sulfathiazole and 10.5 per cent for sulfapyridine. Two patients receiving sulfapyridine had retention of nitrogenous products and oliguria, presumably due to crystals of the drug. Three patients who had sulfathiazole suffered drug fever. Two patients had a dermatitis due to sulfapyridine.

TABLE III

Analysis of Deaths in the Sulfapyridine-Treated Group*

No.	Age	Day of Disease Treatment Begun	Type	Blood Culture	No. of Lobes Involved	Total Dose of Drug, Gm.	Total Amount of Serum, Units	COMMENT
1	36	7	I	Negative	2	14	200,000	Arrested pulmonary tuberculosis with therapeutic pneumothorax; died in 29 hours; no autopsy.
2	59	7	III	Positive	4	10	200,000	Very sick on admission; died in 33 hours; autopsy: pneumonia in 4 lobes.
3	55	6	I	Positive	4	44	200,000	Temporary response; autopsy; pneumococcic meningitis, endocarditis and pneumonia in 4 lobes.
4	65	7	III	Negative	5	126		Central nervous system; syphilis and senility; autopsy: arteriolarnephrosclerosis and urinary tract infection.
5	55	4	I	Positive	5	3		Died in 4 hours, autopsy: pneumonia in all lobes with abscess formation.
6	60	6	I	Negative	4	6	200,000	Died in 15 hours; no autopsy.
7	48	8	II	Negative	3	4	180,000	Died in 12 hours; autopsy: pneumonia in 3 lobes; chronic pyelitis.
8	40	7	III	Positive	2	4		Died in 5 hours; autopsy; pneumonia in 2 lobes; empyemia.

* The autopsies were performed by members of the staff of the department of Pathology of Cleveland City Hospital; division chief, Dr. H. T. Karsner.

COMMENT

In a general way, these further observations upon the value of sulfathiazole and sulfapyridine in the treatment of pneumococcic pneumonia are similar to those of the previous season. Once more it was found that approximately twice as much sulfathiazole as sulfapyridine is required to maintain an average concentration of 5 mg. of the free drug per hundred cubic centimeters of blood. The mortality rate of 7.3 per cent for the sulfathiazole-treated group and 10.5 per cent for the sulfapyridine-treated group shows no significant change. Although the patients treated with sulfapyridine probably were more ill as evidenced particularly by more extensive pneumonia and a higher incidence of concurrent disease, it would appear that the two drugs are about equally effective.

As in the previous series, sulfapyridine brought the temperature to normal a little more rapidly. Sulfathiazole was found to cause less vomiting but more crystals in the urine.

SUMMARY

Sulfathiazole and sulfapyridine appear to be equally effective in the treatment of pneumococcic pneumonia, the mortality rate at Cleveland City Hospital apparently being stabilized at 7 to 11 per cent regardless of which drug is used. Approximately twice as much sulfathiazole as sulfapyridine is required to maintain an average concentration of 5 mg. of the free drug per hundred cubic centimeters of blood. Sulfathiazole does cause less vomiting but apparently more crystals in the urine.

REFERENCES

1. Garvin, C. F.: Comparison of Sulfathiazole and Sulfapyridine in Treatment of Pneumococcic Pneumonia, Arch. Int. Med. 66:1246 (Dec.) 1940.

2. This does not include patients who died or who remained in the hospital for further study or treatment of accompanying conditions.

Because of outbreaks in food poisoning, the Federal Security Agency has advised manufacturers against using cadmium, a substitute for aluminum, in plating utensils and refrigerator containers. The Office of Production Management has stated that it would not release cadmium for this use.

Diagnosis of Monocytic Leucemia From an Examination of the Peripheral Blood Stained With Wright's

With a Report of Five Cases

EUGENE H. STERNE, JR., M.D.

THE diagnosis of monocytic leucemia may be suspected clinically, but final proof from the point of view of the general practitioner rests on his ability to demonstrate pathological monocytes in the peripheral blood stained by Wright's.

Many excellent reviews, Forkner,[1a] Osgood,[2] Doan and Wiseman,[3] Klumpp and Evans,[4] have appeared, covering the clinical and pathological features of the disease, and it is not the purpose of this paper to describe these, for the clinical picture, including the enumeration of the total white and red count, is often so similar in the three types of leucemia as to defy accurate differentiation. Yet the recognition of monocytic leucemia is not only of academic interest, as X-ray treatment in the acute form may be catastrophic, the prognosis for duration of life is shorter than for myeloid and lymphatic leucemia, and in the future specific therapy may be available which will require careful differentiation.

Since Schilling and Reschad[5] in 1913 first differentiated a third type of leucemia on a morphological basis, considerable confusion has existed as to the independence of monocytic leucemia, or granting its independence, as to the origin of the cell type and its possible variants. Much of this confusion is due to the terminology as the same cell has been given varying names. For the relative merits of these terms and the 19 separate views as to the origin of the monocyte, the reader is referred to Forkner.[1a]

A simple classification of the relative age of monocytes will suffice in most instances, and may be compared to a similar nomenclature used by most physicians for the myeloid series. According to this system, the youngest recognizable cell is called a monoblast (corresponding to the myeloblast); a slightly older form, a promonocyte (promyelocyte); a still older cell, a young monocyte (myelocyte); and finally the adult monocyte (mature neutrophile.) It is our belief that the last three, and frequently the first type may be satisfactorily identified by means of a Wright's stain of the peripheral blood. This first type (monoblast) is the earliest recognizable cell. While some hematologists believe that its differentiation from other blasts is not possible, others (Watkins and Hall,[6] Osgood,[2] Doan and Wiseman,[3] and Forkner[1a]) feel that such differentiation can be made by Wright's stain, although they are not all in complete agreement as to the detailed criteria.

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MONOBLAST

(Plate 1. a, b)

Size: is about that of a myeloblast, of no assistance in differentiation.

Cytoplasm: moderately dense deep blue cytoplasm, deeper blue and less "clear" than that of a myeloblast, but not as blue and splotchy as that of a lymphoblast. The presence or absenece of perinuclear pallor is of no significance. The presence of vacuoles is suggestive, although myeloblasts may occasionally show vacuolization.

Granules: monoblasts, in common with other blasts, have no granules.

Nucleus: The nucleus fills about two-thirds of the cell. It is round, oval, or slightly idented. Watkins[6] describes a sharp nuclear membrane, but I do not feel that this is significant. The chromatin is densely stippled, not fine and seive-like as in a myeoblast, nor fenestrated as in a lymphoblast. In our cases a helpful point as described by Watkins[6] is a slight "grooving" of the nucleus, which does not ordinarily occur in myeloblasts.

Nucleoli: Most observers find nucleoli invariably present, although Forkner[1b] notes their absence. They are generally less in number (one or two) than in myeloblasts, but this point is of little aid in differentiation. In Doan and Wiseman's series[3] nucleoli are described as spherical; in Watkins and Hall's[6] as irregular. Our own

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cases show considerable variation with a tendency more to spherical form.

PROMONOCYTES AND YOUNG MONOCYTES

(Plate 1. c, d)

Size: These cells are generally larger than monoblasts and myeloblasts, but may be the same size as myelocytes.

Cytoplasm: In the promonocyte there is still considerable basophilic cytoplasm remaining, but it is beginning to take on a greyish tint. In the young monocyte the cytoplasm is an opaque, mottled slate grey with only traces of basophilia to indicate its youth. The cytoplasm in both the promonocyte and the young monocyte is relatively more abundant than in the monoblast, and frequently is highly vacuolated. (Doan and Wiseman.[3]) Auer bodies may be present in the promonocyte. (Forkner,[1a]) but are of no assistance in differentiation.

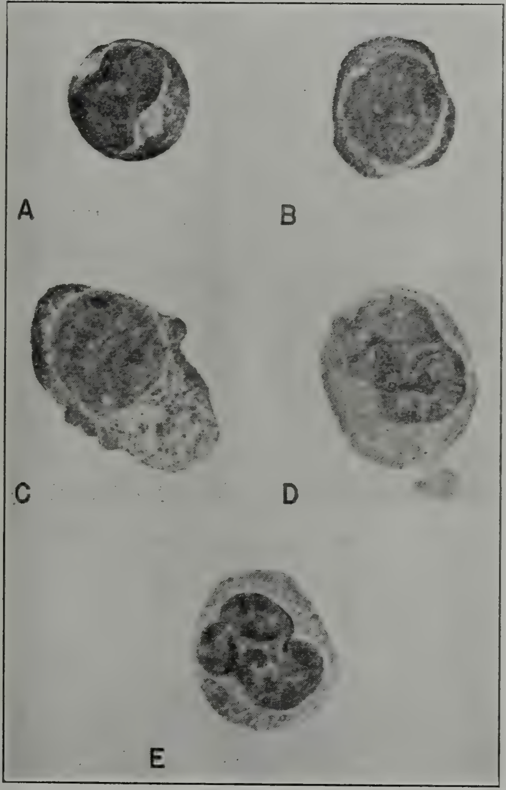

Plate 1. Types of monocytic cells seen in monocytic leucemia.
a and b—monoblasts
c—promonocyte
d—young monocyte
e—adult monocyte

Granules: the promonocyte has a few fine azurophilic granules, progressing to many fine scattered dust-like granules in the young and mature monocyte.

Nucleus: in the promonocyte the nucleus may still be oval or slightly indented; the characteristic "grooving" is frequently more pronounced than in the monoblast. The nucleus of the young monocyte loses its fine chromatin structure, becomes lighter and more lace-like, and assumes an irregular shape. The folds of the nucleus may often be seen due to its transparency.

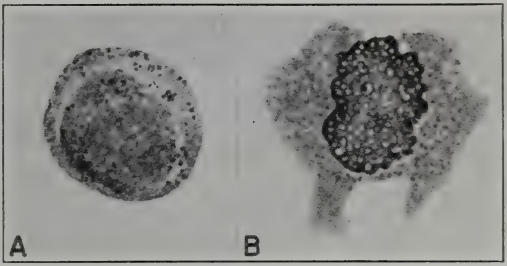

Plate 2.
a—neutrophilic myelocyte
b—clasmatocyte

Nucleoli: are still present in the promonocyte, and frequently in the young monocyte.

The most difficulty is encountered in distinguishing monoblasts from myeloblasts, and promonocytes and young monocytes from myelocytes. Among the differential points described, the denser basophilism of the cytoplasm, and the denser stippling and "grooving" of the chromatin of the nucleus have proved the most useful in our series as far as identifying the monoblast is concerned. The promonocyte has areas of bluish grey, and not pinkish cytoplasm such as characterizes the myelocyte. The granules are finer and less acidophilic, and seldom overlie the nucleus in any considerable number as they do in the younger myelocytes. (See Plate 2-a). The young monocyte should cause little difficulty as it already has most of the characteristics of the adult form.

In monocytic leucemia, as discussed below, the percentage of monocytes is usually well over 60 per cent, but the proportion of the various ages of the cells follows no constant pattern. Rarely all the monocytes may be of the adult type. Far more commonly there are a large number of young monocytes, promonocytes, and monoblasts, and it is the presence of these cells that suggest a leucemic process. (See Chart 1).

IMMATURE MYELOID CELLS IN MONOCYTIC LEUCEMIA

Many cases of monocytic leucemia show in the peripheral blood smears a varying proportion of myeloid and occasionally lymphoid immatrity, at times in such numbers as to raise the question of a mixed leucemia or cast doubt on the original diagnosis. But it is not surprising that in the presence of an intense reticulo-endothelial hyperplasia such as occurs in monocytic leucemia that immature cells of other series will "spill over" into the peripheral blood.

In our series, young myeloid cells varied between 2 to 15 per cent. Other authors, (Clough,[7]) have noted myelocytes as high as 45 per cent. Ordinarily the percentage of monocytes, both mature and immature, is high enough to avoid confusion as to whether the monocyte or the myelocyte is the leucemic strain of cell. In the series reported by Klumpp and Evans[4] and Forkner[1a] the percentage of monocytes was well over 60 per cent, although it must be realized that in certain stages of the disease the relative or even the absolute numbers of monocytes may not be increased. (Osgood[2]). In 17 determinations on our own cases, the percentage of monocytes was well over 60 per cent in 12. In the five instances (Case L.E.) which showed a lower percentage, over half of the monocytes were young forms, and the myeloid elements never exceeded 10 per cent; so little doubt remained as to which was the leucemic strain. In those few cases in which immature myeloid and monocytic elements are present in equal numbers, Doan and Wiseman[3] have suggested the application of certain criteria available for the appraisal of normal cellular development as contrasted with abnormal and disordered maturation in order to distinguish the primary from the secondary involvement. The leucemic series is the one which will show amitotic nuclear division, unequal divisions of nucleoli, and incomplete mitotic spindles with resulting nuclei of unequal size.

The presence of one other type of cell in monocytic leucemia should be briefly mentioned—the clasmatocyte. This is believed by Cunningham, Sabin, and Doan[8] to be a fourth type of cell and present in normal blood in small numbers. Other authors (Dameshek[9]), do not agree with this concept, but in any event certain cases of monocytic leucemia show a high percentage of these cells. (Klumpp and Evans,[5] Clough,[7] Dameshek[9b]). It is a large round cell, about 20-50 mu. in size with hazy irregular borders, often possessing pseudopods. The cytoplasm is weakly basophilic, and contains azure granules which are larger and heavier than those in a monocyte. The nucleus is round or oval with a very spongy chromatin and a distinct nuclear membrane. (Plate 2-b). Dameshek[9a] believes this cell to be the forerunner of the monocyte, and at times transitional cells may be seen which suggest this relationship.

I have emphasized the diagnosis of monocytic leucemia from the examination of the peripheral blood stained by Wright's. If trained hematologists and pathologists are available, valuable additional evidence may be obtained from supravital staining, lymphnode biopsy, and bone marrow aspiration. The former is important in differentiating monocytes and their precursors from other cell types. The latter two procedures are often necessary to distinguish monocytic leucemia from other diseases producing reticuloendothelial hyperplasia, such as Hodgkin's disease, tuberculosis, reticulum cell sarcoma, benign monocytoses, etc.

SUMMARY AND CONCLUSIONS

1. Monocytic leucemia can be differentiated from other acute leucemias by examination of the peripheral blood stained with Wright's, and it is important that this distinction be made.

2. A simple classification of the relative ages of the monocytes is given, with a detailed description of the cells and photographs.

3. The monocytic cells commonly make up more than 60 per cent of the total white cells. Although immature cells of other series are frequently present in the peripheral blood, the primary process can usually be distinguished.

4. Supravital staining, lymphnode biopsy, and bone marrow aspiration may offer valuable confirmatory evidence.

5. Five cases of monocytic leucemia are appended with their hematological data.

CASE REPORTS

Below is a brief report of five cases of monocytic leucemia observed over a period of two years at the Cincinnati General Hospital. All five were confirmed by supravital examination of the peripheral blood, and three by post mortem examination and biopsy. A representative hemogram on each will be found in Table 1.

Case 1. C.L., No. 108901, was a 68-year-old white man who was admitted to the surgical service of the Cincinnati General Hospital on April 30, 1940, and died on June 9, 1940. Nineteen days before his admission he suddenly developed a severe sharp pain in the lateral aspect of his right thigh. Subsequently the thigh became swollen, hot, and tender, with the development of three small ulcers which the patient attributed to the overzealous use of linament. There was no history of trauma.

Physical examination revealed a rather pale man who did not appear to be acutely ill, but who complained of pain in the right leg. Temperature was 101. There was a small superficial ulcer at the left buccal angle which the patient stated had been there for several weeks. Liver and spleen were not felt, and there was no adenopathy. The entire right thigh was diffusely swollen, red and tender, without much increase in local heat. There were three small indolent ulcers on the lateral aspect. Because of some unclassifiable cells found on routine blood examination, the medical service was asked to see the patient in consultation, and a diagnosis of monocytic leucemia was made. Hematological findings are summarized in Table 1.

On the second hospital day a femoral abscess was incised and staphylococcus pus obtained. The patient did poorly postoperatively. The temperature remained constantly elevated, and the incision in the thigh did not heal. Pustules developed over the back along with numerous

Case	RBC in millions	Hgb in grams	Platelets in thousands	Reticulocytes	WBC in thousands	Adult Neutrophils	Lymphocytes	Adult Monocytes	Pro-monocytes and Young Monocytes	Monoblasts	Myelocytes	Clasmatocytes
1. (C.L.)	2.20	6.4	2.0	0.1	88.0	4	2	33	26	19	15	
2. (A.S.)	2.80	8.3	28.0	0.1	14.0	10	32	12	30	4		12
3. (L.E.)	1.93	8.2	22.0	0.8	35.0	4	8	25	20	36	7	
4. (R.A.)	1.29	4.6	20.0	4.8	12.3	9	7			77	7	
5. (W.S.)	2.81	9.4	174.0	1.2	5.1	22	16	8	46	4	4	

Table 1. Representative blood findings on the five cases reported.

hemorrhagic areas. One blood culture was positive for B. Coli. Biopsy of the ulcers on the back and leg showed only chronic inflammation. He expired on the 40th hospital day.

Post mortem examination revealed monocytic leucemia involving the spleen, liver, lungs, kidneys, suprarenals, and lymph nodes.

Case 2. A.S., No. 150707, was a 73-year-old white woman who was admitted to the Cincinnati General Hospital on October 19, 1940, and died November 1, 1940. One year before admission she began to notice loss of strength. Three months before entry the weakness became marked, along with dyspnea on exertion, vague aching pains, and dizzy spells. At this time her family physician told her she was anemic. For the two weeks preceding admission she vomited frequently, had complete anorexia, and some blurring of vision.

Physical examination revealed a very pale old woman who appeared chronically ill. Temperature was 101. Over the skin of her lower chest and upper abdomen were numerous salmon pink papular and small nodular elevations, some of which were surmounted by tiny vesicles. The tonsils were greatly enlarged. There were many small, freely movable cervical nodes with moderate right sided axillary and inguinal adenopathy. The liver was just palpable, the spleen was not felt. There was moderate tenderness over the sternum and both iliac crests. Hematological findings are summarized in Table 1. Sternal aspirations examined by both Wright's and supravital methods showed the bone marrow to be entirely replaced by monoblasts and varying stages of young monocytes.

The patient's course was rapidly down hill with constant elevation of temperature, and she expired on the 13th hospital day. Post mortem examination revealed acute monocytic leucemia with generalized visceral and cutaneous infiltrations.

Case 3. L.E., No. 152162, was a 31-year-old white woman who was admitted to the Cincinnati General Hospital on November 26, 1940, and died on December 21, 1940. Two months before entry she developed a moderately severe cold. The following week her gums became sore and were treated locally. She subsequently developed diffuse tender swelling of the entire right side of her face, and was forced to give up work because of weakness. Four weeks before admission, as the stomatitis was subsiding, she felt "lumps" in the back of her throat, and since then small tumor masses appeared irregularly over her entire body. Following the appearance of the lumps in her mouth, she received several injections of neoarsephenamine. Gradually dyspnea, cough, dysphagia, and aphonia made their appearance.

Physical examination revealed a rather thin, pale, white woman who did not appear ill. Temperature was 102. Scattered over almost the entire body, including the mucous membranes of the mouth, vagina, and rectum, were numerous small tumor masses, ranging in size from that of a pinhead to that of a pea. Most were freely movable, others partially fixed, and a few showed a slight violet discolorization. Indirect laryngoscopy revealed nodules preventing the approximation of the vocal cords. The sternum was tender to pressure. There was moderate generalized adenopathy. The liver was enlarged 3 FB, the spleen 2 FB. Hematological findings are summarized in Table 1. Sternal aspiration examined by Wright's and supravital showed over 50 per cent of the marrow to be replaced by monoblasts and young monocytes. X-ray of the chest showed increased broncho-vascular markings, with marked accentuation in the region of the hilum. There were some small circumscribed densities seen in both lung fields.

The patient maintained a continuously high temperature. Gingivitis of the gum margins increased and reached a necrotic stage. New nodules appeared, and many of the old ones became more superficial and discolored. She died on the 25th hospital day.

Although post mortem examination was not obtained, biopsy of one of the nodules showed the normal architecture of the subcutaneous tissue to be entirely replaced by marked infiltration with monocytic cells, and also large endothelial cells, a lesion which is indistinguishable from the skin manifestations of monocytic leucemia.

Case 4. R.A., No. 144705, was a 26-year-old white man who was admitted to the Cincinnati General Hospital on June 5, 1940, and died July 5, 1940. Nine weeks before entry he developed a sore throat, chilly sensations, fever and swollen glands in the neck. These symptoms subsided after some days, but the patient never regained his strength. Following this, he developed some soreness of his gums for which he received local therapy. Two weeks before entry, the right side of his jaw became swollen and painful, and he noted the onset of increasing pallor, weakness, dyspnea, night sweats, and slight bleeding from the gums. He visited his dentist who incised the gum around the teeth in the right lower jaw.

Physical examination revealed a young white man who appeared chronically ill. Temperature was 101. There was marked pallor of the skin and mucous membranes. Over the chest, arms, conjunctivae, and fundi there were a small number of petechiae. About the lower molars on the right, the gum was swollen and redundant with a rather extensive ulcerative lesion associated with external swelling about the angle of the jaw. The right submaxillary node was tender and firm, the left tonsillar node enlarged, and there were a few shotty nodes in both axillary and inguinal regions. The spleen was questionably palpable. Hematological findings are summarized in Table 1.

Cellulitis developed over the entire right side of the face, along with severe bleeding from the involved areas in the mouth. At the end of two weeks the spleen was definitely palpable. The patient's course was progressively downhill, and he died on the 30th hospital day. Post mortem examination was not obtained.

Case 5. W.S., No. 156923, was a 56-year-old white man who was admitted to the Cincinnati General Hospital on March 29, 1941, and discharged on April 3, 1941. Two months before admission he noted the onset of weakness, edema of the ankles, and severe dyspnea without orthopnea. At this time his physician told him he was anemic. Five weeks before entry he developed a head cold with a slightly productive cough. Five days before entry, because of continued cough, fever, and pain in both lower rib margins, he came to the hospital.

Physical examination revealed a moderately ill white man who showed marked pallor. Temperature was 103. There was an area of acute folliculitis over the upper lip. In the left conjunctivae, left fundus, and in the mucous membrane of the mouth were a few small petechiae. The tonsils were not abnormally large, and there was no adenopathy. The lungs showed signs of patchy broncho pneumonia. The liver was enlarged three FB, and some observers could feel the tip of the spleen. Hematological findings are summarized in Table 1.

The patient was placed on sulfathiazole, but the temperature remained high. He left the hospital against advice on the 6th day and died at home. Post mortem examination was not obtained.

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Myocardial Dysfunction

Inasmuch as it is non-toxic, thiamin hydrochloride certainly should be administered in all cardiac cases. Weiss stated as early as 1937 that many cases of myocardial heart failure are due to an unbalanced diet, especially one deficient in the B complex, particularly B_1. Many obscure cardiac conditions resemble the "beriberi heart" and the symptoms clear up within 24 hours after the administration of crystalline vitamin B_1, along with routine measures. Prophylactic treatment should interest the medical profession more than at present, and should be effective. Cowgill has developed a formula for determining the vitamin B_1 requirement of man, but I am inclined to agree with Sherman that if half the food calories are derived from milk, eggs, fruits, vegetables and un-denatured cereals, an ample supply of vitamin B_1 will be provided. It must be borne in mind that absorption of the vitamin is as important as the food content, and also, that alcohol and a high carbohydrate diet increase the thiamin requirement. The nuclei of cells are especially rich in vitamin B_1, which explains why whole cereals, green vegetables, liver, kidney and sweetbreads are more potent than muscle fiber.

The vitamin is soluble in water and is readily oxidized by heating in contact with air, so that the proper cooking of food is just as important as the vitamin B_1 content. The water drained from green vegetables will often contain more vitamin B_1 than the cooked vegetable, and this fluid should be utilized in making soups and gravies, as well as in cooking meats.

Considerable chemical research is being conducted in an effort to determine the absolute content of vitamin B_1 in various food stuffs, and the thiochrome test has assisted considerably, but at present we must rely upon the results obtained by feeding experiments on lower animals for our knowledge of vitamin B_1 content of foods.—Allan Eustis, M.D., New Orleans; New Orleans M. and S. Jour., Vol. 94, No. 8, February, 1942.

Cyclopropane Anesthesia

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The Authors

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THE usefulness of any anesthetic agent depends upon many factors which not only vary in different institutions but occasionally vary from year to year in the same institution. Consequently it is frequently necessary to evaluate anesthetic agents and methods in order to obtain the most satisfactory results.

The actual number of times cyclopropane was used at Huron Road Hospital either alone or with other agents during the last seven years is shown in Column I. This reflects an increase in popularity of this agent as judged by the number of administrations each year. From this point of view cyclopropane has maintained a position of major importance as an anesthetic agent during the last six years.

The use of cyclopropane unsupplemented by other agents is shown in Column II. Following a very rapid rise during 1936 and 1937 there has been a gradual decrease each succeeding year in its use as the sole anesthetic agent. Probably the most significant finding here is its decreased use for intra-abdominal operations. This may be largely accounted for by the increased satisfactoriness of other methods of anesthesia for these cases. It may be stated that cyclopropane unsupplemented is now only occasionally used as a method of producing profound degrees of anesthesia. The apneic technique of using this gas has occasionally been very useful. It has not, however, become popular as a routine procedure. Other reasons for the decreased use of cyclopropane are the substitution of non-inflammable agents when certain electrical appliances are employed and the increased use of intravenous and regional anesthesia for orthopedic, rectal, urological, and emergency operations.

Cyclopropane is also being used less frequently as the agent of choice for operations on the thyroid gland. This is due to the incidence of respiratory obstruction unless an endotracheal airway is employed. Nitrous oxide or the various combinations of nitrous oxide, intravenous, and regional anesthesia are now used in many of these cases. Since cyclopropane does not stimulate respiration, it has been pointed out repeatedly that the degree of preoperative sedation should be limited carefully in order to facilitate its administration. During the last few years we have used more adequate preoperative medication which has been another important factor in the decreased use of unsupplemented cyclopropane anesthesia.

Column III shows the frequency with which cyclopropane was used with spinal anesthesia. It is our practice to supplement intentionally many of our spinal anesthesias with a light plane of cyclopropane. Induction with this gas is begun as soon as the desired level of spinal anesthesia is obtained and patients are carried in a light plane throughout the operation. The benefits of a high concentration of oxygen is thus assured to the patient. It also removes the objection that many patients have to being awake during the operation. The dosage of drug employed for the subarachnoid block may be materially decreased when it is planned to use a supplementary agent. This practice of supplementing spinal anesthesia with cyclopropane appears to be one method of increasing the satisfactoriness of the safety of spinal anesthesia for many intra-abdominal operations.

Year	I	II	III	IV	V
1935	165	159	0	6	0
1936	1155	896	65	194	0
1937	1766	1157	125	484	0
1938	1891	1106	379	406	0
1939	2029	1001	784	244	0
1940	2243	885	1202	104	52
1941 (Jan.-Aug.)	1685	497	1044	114	30

I.	Total Number of Times Cyclopropane Was Used.
II.	Number of Times Cyclopropane Was Used Alone.
III.	Number of Times Cyclopropane Was Used to Supplement Spinal Anesthesia.
VI.	Number of Times Cyclopropane Was Used to Supplement Ether Anesthesia.
V.	Number of Times Cyclopropane Was Used With Other Agents.

The other uses of cyclopropane have been principally with ether. Column IV indicates the extent of its use in this manner. In the past this combination was used principally for intra-abdominal operations but during the last two years regional anesthesia has been displacing cyclopropane and ether in this type of operation. Ether is now used to supplement cyclopropane when adequate relaxation cannot be produced without undue respiratory or circulatory depression. Ether is also used whenever it is necessary to use unusually high concentrations of cyclopropane to maintain the desired level of anesthesia.

SUMMARY

The use of cyclopropane at Huron Road Hospital since 1935 has been briefly reviewed and our impressions are advanced as to the principal reasons why its use as an anesthetic agent has been altered from time to time. It has been our experience that fewer complications are encountered if cyclopropane is used conservatively. This is accomplished by adequate premedication and the judicious use of other agents in conjunction with cyclopropane, especially when deep planes of anesthesia are required. As a result of these modifications in the use of cyclopropane, the percentage of satisfactory anesthetics has been increased. There has been a gradual increase in the total number of patients each year who have received cyclopropane either alone or in combination with other agents.

Primary Carcinoma of the Lacrimal Punctum

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Small tumors in relation to the eye lids are quite common. Among these are the chalazion, nevus, melanoma, warty growths, squamous and basal cell carcinoma, and xanthoma. Tumors may occur in almost any situation on the eyelids but particularly are found in the region of mucocutaneous junctions. However, the occurrence of a primary basal cell carcinoma of the lacrimal punctum is evidently quite rare, for in reviewing the Cumulative Index from 1920, there is no report of this nature. A lacrimal punctum is located in the inner aspect of both the upper and lower lid margins. It is the opening into which the lacrimal secretion enters to pass through the canaliculus leading into the lacrimal sac. The duct of the latter drains into the nose below the inferior turbinate.

Too often, small, simple, benign looking growths are removed from the region of the eyelids without concern as to the possible etiology or histology of the mass. It is the opinion of the author that after removal of these innocent looking tissues they always be sectioned. It would be much more satisfactory to learn in this way that these tumors are once in a while malignant, than to discover several weeks after removal that there is a recurrence or ulcerative process at the site of removal.

T.P., a white male, age 50, was referred for treatment because of a constant epiphora of the right eye. There was no history of infection or injury, the tearing had been present about three weeks. There was a small pea-shaped mass about four by three millimeters on the right lower lid, completely occluding the lacrimal punctum by incorporation of the opening in the base of the growth. In appearance and consistency it resembled a small wart. The tumor was carefully dissected, grossly removing all of the mass. Particular care was used to avoid mutilating the punctum or canaliculus. As soon as the base of the tissue was dissected the lacrimal opening could be seen. A No. 1 Bowman probe entered easily and fluid syringed readily through the opening into the nose.

The specimen obtained was sectioned, and examination disclosed a basal cell carcinoma as evidenced by the finding of strands, sheets and nests of cells with scant cytoplasm and darkly stained spindle shaped nuclei. The tumor islands were in a vascular fibrous stroma. No pearls nor keratinization were seen.

X-ray therapy was administered at intervals over a three-week period to the region of the inner aspect of the lower lid. A total dose of 6000 r. at 200 and 125 KV was used. A perceptible blanching and smoothing of the skin in the region of the punctum could be noticed after the course of treatment. There was no interference with the normal function of the lacrimal system at that time nor after examination several months later.

A case of primary carcinoma of the lacrimal punctum has been presented, the unusual feature being the location of the tumor. The practical importance of biopsy of any tumor of the eyelid, no matter how small or benign it may appear has been stressed.

610 N. Market St.

The Dangers in Breech Delivery

Fetal mortality at two Detroit hospitals was more than three times as great for breech as for all presentations. Skill in actual delivery can greatly modify fetal loss, but it cannot eliminate all dangers. Premature separation of the placenta, frank breech, prolonged labor, and premature rupture of the membranes are probably unimportant as factors in the increased risk. Prolapse of the umbilical cord, however, with its high mortality, is six times more frequent in breech than vertex. The risk for full term breech babies is high in both primiparas and multiparas, but the increase is much greater in first labors. For premature babies there was an unexplained reversal of this parity relationship. Breech delivery in elderly primiparas, or when the baby is large, or when there is contracted pelvis results in such a high fetal mortality as to justify cesarean section in some instances. Finally, it is emphasized that the additional risks due to breech presentation can be eliminated in the majority of cases by prophylactic external version to vertex.—Ward F. Seeley, M.D., and R. S. Siddall, M.D., Detroit; Jour. Mich. S.M.S., Vol. 41, No. 1, January, 1942.

Survey of Maternal Mortality at Mercy Hospital, Hamilton, Ohio, 1924 to 1939

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THE maternal mortality in the United States has undergone a vast change in the past 16 years. Up until 1929 the rate was steadily increasing until it had reached a rate of 7 per 1,000 live births. Since 1929 this rate has been just as steadily decreasing. The last maternal mortality rate for the United States, taken in 1938, was 4.35, which was a decrease of 38 per cent in nine years.

In this survey we are going to analyze the maternal deaths in Mercy Hospital for the past 16 years and compare this rate with that of the country as a whole. We feel that such a comparison will give a fairly reliable index of maternal deaths and their causes, for the county.

We reviewed all our deliveries in the past 16 years from 1924-1939 inclusive. In this period of time there were 8,537 deliveries, of which 8,254 were live births and 28 maternal deaths. This gives a death rate of 3.4 per 1,000 live births.

In 1938 the rate for the United States was 4.35 per 1,000. The lowest rate on record among hospitals is held by Chicago Lying-In Hospital, between 1931-36, and this rate was 2.44 per 1,000. Using these figures, we see that for a medium-sized general hospital, which accepts all types of patients and where obstetrics is done by general practitioners, the comparison is quite good.

Among the 27 localities of the United States having between 2,000-3,000 deliveries yearly (same as Butler County), only four have a lower mortality rate. The figures of our hospital should not be taken as the official figures of Butler County or Hamilton City, but it being the oldest hospital in the community and having the largest number of deliveries it may reflect the whole county maternal mortality rate.

Our deaths may be classified in two main groups—non-puerperal and all puerperal causes.

NON-PUERPERAL DEATHS

The non-puerperal deaths are pertaining to deaths caused by constitutional or infectious diseases which are not related to puerperium and which affect the parturient during their second half of pregnancy. We had five non-puerperal deaths, three were of labor pneumonia, one cardiac and one ruptured appendix. Two of these pneumonia patients were in the sixth month of pregnancy and having had the onset of pneumonia at home, were admitted to the hospital on the fourth day of their illness. One was a 39-year-old primipara who had a complication of nephritis. The other was a 17-year-old multipara who had pneumonia two years prior. Both had spontaneous deliveries and gave birth to live babies who expired a few hours later. The mothers expired a few days after delivery. The third was a parturient in the ninth month of pregnancy and had a placenta praevia. The parturient had been having uterine bleeding 10 days prior to admission. Baby was delivered by cesarean section. Patient developed a post-operative pneumonia and died 11 days after. The cardiac, a 36-year-old multipara in the ninth month of pregnancy, with mitral insufficiency, had spontaneous delivery and sudden death occurred one day after. There was no confirmation as to whether she died from pulmonary embolism (autopsy was not done). The last of our known puerperal deaths was an 18-year-old primipara in the eighth month of pregnancy, admitted to the hospital in an advanced stage of acute appendicitis. She had inductions of labor with castor oil and delivered baby normally and alive. Her condition became worse after delivery and was much distended and cynotic. Patient expired five days after delivery. An autopsy was performed and the diagnosis of perforated appendix with general peritonitis was confirmed.

Classification of Deaths by Causes

NON-PUERPERAL CAUSES		5	18%
(1) Labor pneumonia	(3)		
(2) Cardiac	(1)		
(3) Ruptured appendix	(1)		
ALL PUERPERAL CAUSES			
(1) Infections		3	11%
(a) Phlegmasia alba dolens	(1)		
(b) Puerperal septicemia	(2)		
(2) Hemorrhages		4	14%
(a) Placenta praevia	(3)		
(b) Ruptured Uterus	(1)		
(3) Toxemias		15	54%
(a) Acute yellow atrophy of liver	(1)		
(b) Eclampsia	(9)		
(c) Nephritis	(2)		
(d) Unclassified toxemias	(3)		
(4) Pulmonary embolism		1	3%
Total		23 5	82% 18
Grand total		28	100%

ALL PUERPERAL CAUSES

Infections. During the 16 years of our survey we had three maternal deaths caused by puerperal infections which make 11 per cent of our maternal deaths. This is comparatively small, the percentage of the country being 17 per cent for

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Submitted November 12, 1941.

1937 and over 24 per cent for 1930. All three patients were primiparas between 17 and 22 years of age and had a doubtful prenatal care. As to the time of these infections, one occurred in 1930 and one in 1934 and the last one in 1939. In the past five years we have had only one death from puerperal septicemia and this one was a rural resident with very poor prenatal hygiene. All three patients had an unrestricted number of vaginal examinations. The character of the deliveries were various. One baby was delivered by forceps; one had a craniotomy and the third had a spontaneous delivery. The onset of the symptoms of puerperal fever started on the second post-partum day for two, and on the third post-partum day for the third parturient. One had phlegmasia alba dolens with gangrene of the leg, one had general septicemia and the last one had septicemia with metastatic abscesses of the hips and in the lungs. Two of them expired in the two weeks following delivery and the other expired two and one-half months after. An autopsy of our last septicemia was performed, confirming the diagnosis of septicemia with metastatic abscesses.

The number of puerperal infections as shown above is very small in this hospital. This is probably due to the following factors: First, the obstetric department is an isolated floor and eliminates all contagious diseases. Second, unlimited but careful vaginal examinations (by wet glove system). Third, a surgical asepsia in the delivery room.

Hemorrhages. Four maternal deaths were caused by severe hemorrhages. Two expired on day of admission and we do not have a complete record on any of them. We do know, however, that both had podalic version and expired a few hours after delivery. One parturient, a 33-year-old primipara at term was admitted to the hospital because of severe bleeding. When admitted she did not receive any oxytocia drugs but had 1/60 of strychnine. Parturient's uterus became tonic and Bandl's ring developed. High forceps were applied, first without result, then version was performed and the head pushed back, then delivered by forceps. This resulted in rupture of the uterus and a very extensive tear of the vagina. Patient was brought to the operating room but during the process of repairing the rupture she expired from shock. The last of these four was a 42-year-old primipara in the eighth month of pregnancy having a placenta praevia. Patient had been bleeding for 10 days prior to admission. A cesarean section was done. After the operation she had a complication of acute dilation of the stomach and expired on the sixth post-operative day. Although the direct cause of death was acute dilation of the stomach, we classify it among hemorrhages as being the original cause.

Three of these cases expired in the first 24 hours of admission. All three had too much intrauterine manipulation, such as forceps, version and two craniotomies. Only one may be considered as a post-operative death. Two of our hemorrhages deaths occurred in 1924, one in 1926 and the last one in 1932. Most of them appeared in the first three years of our survey. Although the incident of placenta praevia and pre-partum hemorrhages are the same, for the past 10 years there has been much less intrauterine manipulations in such cases. The physicians are more inclined to conservative treatment or cesarean section in special cases.

Toxemias gave the highest toll of our maternal deaths. Fifteen, or 54 per cent of our 28 maternal deaths were due to toxemias. Because the knowledge was very limited until the past few years, only cases of severe toxemias with convulsions were diagnosed as toxemias. The number of such cases during the past 16 years was 76 with a mortality of about 20 per cent which is fairly high. Eight of these patients had signs of toxemia all along during their pregnancy. Five started to show first symptoms two weeks prior to admission and only two had the first symptoms the day of admission. Most of these patients had their first prenatal examination between the seventh and ninth month of pregnancy. Twelve were primiparas and three were multiparas. Their ages ranged between 17 and 36. The majority (12) were between the ages of 17 and 25. Ten were of full term pregnancy, three eight months, and two, six and one-half months pregnant.

These 15 toxemias are classified as follows:

(1) one acute yellow atrophy of the liver
(2) nine eclampsia
(3) two nephritis
(4) three unclassified toxemias.

The patient with acute yellow atrophy of the liver was a 36-year-old primipara in the seventh month of pregnancy and had the onset of symptoms of toxemia the day of admission. She had in addition to palliative treatment, hypertonic solutions and veratum veridae. She delivered a stillborn and expired the second day of admission. The diagnosis of acute yellow atrophy of the liver was determined by an autopsy. All nine eclamptic patients were admitted to the hospital in a very advanced stage of the disease. Six were unconscious and one had severe convulsions on admission. Of the other two, one had gallbladder trouble and bowel obstruction. The other had pulmonary edema. These patients were treated with hypertonic solutions and veratum veridae. The nephritic patients were in advanced stages of their disease with no previous medical treatment. They were put on a restricted free protein diet, alkalines, and cardiac stimulants. One expired the day of admission and the other on the third day. Three of our toxemias could not be classified. They showed more symptoms of uremia than eclampsia. The symptoms occurred in one patient after delivery. As to treatment, they were treated the same as the eclamptic patients. Only three had spontaneous deliveries, two were delivered by forceps, four had induced labor, and six had cesarean sections. The mortality of the babies of these patients was high. Six were stillborn, three babies expired a few hours after delivery and only six survived.

Nine of our toxemias died in the first six years of our survey, between 1924-1929, six in the next nine years and none in the last years. There is a decline in the mortality from toxemia. This is due to more adequate prenatal care and better treatment. Due to the more accurate knowledge of toxemia in the past few years, a regular treatment for toxemia could be established. In 1939 a routine treatment for toxemia was introduced in this hospital. This treatment starts with the appearance of first mild symptoms, such as blood pressure over 140.

Pulmonary embolism: This was a 22-year-old primipara, who had a normal delivery and a sudden respiratory death the next day. An autopsy was performed and a pulmonary embolism revealed.

CESAREAN SECTIONS

During these 16 years 88 cesarean sections were performed. This makes one cesarean section in 97 deliveries in our hospital. This is a smaller percentage of cesarean sections than in the large maternities. Jefferson College Hospital 1:50, New Orleans City Hospital 1:56, Johns Hopkins 1:77. This may explain the higher mortality of cesarean sections we had. Eight deaths in 86 patients operated (two of the 88 had repeated cesarean sections) which is 9.3 per cent. Cesarean sections were done in the cases where other possibilities of deliveries were excluded and the patients were in advanced stages of their disease. Of these eight, six were patients with toxemias and two with placenta praevia. Eighteen patients with toxemia had cesarean sections. This gives a mortality of 33 per cent. Ten patients with placenta praevia were delivered by cesarean sections but had a mortality of 20 per cent. One of them had a post-operative acute dilation of the stomach.

AGE AND GRAVIDAE

Age	Number of Deaths	Primiparas	Multiparas
14-19	8	6	2
20-24	5	3	2
25-29	3	2	1
30-34	5	4	1
35-39	1	1	
40-45	1	1	
Total	23	17	7

Residence: Of 23 patients, 19 were Hamilton residents and four were from rural sections of Ohio State.

Among 23 patients eight were between 14-19 years old and eight between 20-29. Two-thirds were not over the age of 29 and seven between 30-45. Seventeen or almost three-fourths were primiparas and only six multiparas.

BABY MORTALITY WITH MATERNAL DEATHS

Causes		Still-born	Died in the first day of life	Survivals
Non-puerperal	5		3	2
Infections	3	1		2
Hemorrhages	4	2	1	1
Toxemias	15	6	3	6
Others	1			1
	28	9	7	12

Nine of the 28 gave birth to stillborn. (According to the Vital Statistics rules, maternal deaths with stillborn babies should not make part of the maternal mortality rate). This would diminish still more our mortality rate. Seven expired on the first day of life; only 12 survived.

SUMMARY AND CONCLUSION

All the deliveries in Mercy Hospital for the past 16 years were reviewed. In 8,254 live births from 1924 to 1939 inclusive 28 mothers died. This makes our maternal mortality rate 3.4 per 1,000 live births. Of these 28, five were of non-puerperal causes and 23 died from puerperal causes.

The largest number of puerperal deaths are attributed to toxemias, 15 of 23. Most of the toxemic deaths (9) occurred in the first six years of our survey. At one time there was no accurate means of diagnosis and treatment of toxemias. The lack of prenatal care is also responsible for this high mortality. Since prenatal care has improved and more adequate treatment of toxemias was introduced, the mortality of toxemias is diminishing very rapidly.

Four deaths were attributed to hemorrhage—three placenta praevias and one ruptured uterus. These patients had too much intrauterine manipulation, which may have played a part in the cause of their deaths. One expired from postpartum pulmonary embolism.

In 16 years this hospital had only three maternal deaths from puerperal infections. All three patients had poor prenatal care. This low mortality from puerperal infection in a medium sized general hospital which accepts contagious patients is due to the following factors:

(1) isolated floor for obstetrics
(2) accurate hygiene and careful examination of the parturients
(3) surgical asepsia in the labor room.

Periarteritis Nodosa

Case Record Presenting Clinical Problems

HERBERT Z. LUND, M.D.

CASE HISTORY. A 21 year old white male, was in good health until about one year before being admitted to the City Hospital. During that period of time he lost about 15 pounds in weight and began to have spells of coughing and wheezing which he associated with exposure to dust. Seven days before admission to the hospital he began to complain of nausea, vomiting and malaise and, a day or so later, weakness of the lower extremities, backache and pain in the left foot. The past history contributed nothing of interest. The patient had been employed in an electrical plant and used trichlorethylene as a solvent.

While in the hospital the neurological symptoms became more severe and widespread. They were characterized by the presence of areas of pain and hyperesthesia associated with other areas of hypoesthesia which often progressed to complete anesthesia. These were present not only in the legs but about three weeks after admission also appeared in the hands and forearms. The symptoms and signs corresponded to the distribution of nerve trunks. The symptoms were progressive and remissions did not occur. Muscular weakness was present in the affected extremities and it was also noted that the ankle jerks, abdominal reflexes and left cremasteric reflex were absent. The patient had a low fever. There was a moderate hypotension, 95/60. The patient was given thiamin chloride, 5 mg. twice daily. Heat was administered to the painful parts of the extremities.

On the 26th hospital day the patient began to manifest serious gastro-intestinal symptoms. He had pain in the right upper abdominal quadrant and attacks of nausea and vomiting usually after eating fatty foods. Blood was found in the stools. Proctoscopy showed ulcerations of the rectal mucosa and biopsy of the margin of an ulcer showed fibrosis and chronic inflammation. On his 47th hospital day the patient had an acute onset of severe abdominal pain followed within an hour by spasm of the muscles of the right abdominal wall. It was thought that the patient had acute appendicitis and an appendectomy was done. The appendix showed suppurative inflammation of the serosa and peripheral muscular layers. About 30 hours after operation he began to expectorate a little "coffee ground" material. The pulse became very rapid, respiration labored and the extremities cold. He died on his 49th hospital day.

Laboratory Data: Examinations of blood and urine contributed little information except that there was an eosinophilia of the peripheral blood which varied from 4 to 24 per cent of the total leucocytes. Lumbar punctures showed the spinal fluid to be clear and under normal pressure. There were four leucocytes per cu. cm. and the protein was three plus by Pandy's method.

The clinical diagnoses were: Toxic neuronitis; ulcerations of the mucosa of the gastro-intestinal tract; possible perforation of an intestinal ulcer; acute peritonitis; appendectomy.

Autopsy. Lesions typical of periarteritis nodosa were found in the vessels of the heart, the gastro-intestinal tract and the peripheral nerves. The lesions were characterized by necrosis of segments of the arterial wall, always including the entire thickness. This was usually attended by fusiform or saccular dilatations of the vessel. The necrosis was accompanied by infiltration of eosinophils, lymphocytes, occasional neutrophils and occasional giant cells. Fibroblastic proliferation was always present. Thrombosis was frequent. It was not always completely obstructive and various stages of organization of the thrombi were seen. The lesions varied in the degree of necrosis, inflammation and organization. The vessels characteristically involved were small arteries, usually less than 1 mm. in diameter. The tissue in the distribution of these arteries showed degeneration and inflammation. In the heart there were foci of necrosis and fibrosis, in the gastro-intestinal tract extensive deep ulcerations. There was a perforation of a large ulcer of the ileum which appeared to be the cause of the fibrinopurulent peritonitis. The sciatic, femoral, ulnar, radial and median nerves showed variable degrees of inflammation and axonal degeneration. The most important pathological diagnoses were: Periarteritis nodosa; focal myocardial necrosis and fibrosis; ulcerative gastro-enterocolitis with perforation of ileum and fibrinopurulent peritonitis; right ureteral lithiasis with moderate hydronephrosis.

Clinical Discussion (led by Dr. J. A. Toomey). The cardinal signs and symptoms in this case can be grouped under four headings: (1) neuropathy, (2) ulcerative entercolitis, (3) asthma, and (4) eosinophilia. The following diseases were considered: toxic neuronitis, poliomyelitis, trichiniasis and periarteritis nodosa.

The diagnosis of toxic neuronitis was favored.

The syndrome of toxic neuronitis has been described by Guillaine-Barré. It is characterized by disturbances of sensation and motor activity. The symptoms relate to lesions of the peripheral nerves, the spinal root ganglia, and occasionally the spinal cord and brain. The spinal fluid may show a disparity in the quantity of protein and the number of cells. The former tends to be increased, the latter normal or only slightly increased. The prognosis is usually good.

The history of exposure to trichlorethylene brings up the question of this chemical as the cause of the neuropathy. It is a common commercial solvent and both acute and chronic pois-

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From the Department of Pathology, Cleveland City Hospital and the School of Medicine of Western Reserve University, Cleveland, Ohio.

This is the eighth of a series of "Case Records Presenting Clinical Problems," selected by Dr. H. T. Karsner from the Clinico-Pathological Conferences of the Cleveland City Hospital.

oning have been reported. One manifestation is peripheral neuropathy.

The eosinophilia and muscular pains suggested trichiniasis but the neurological and gastro-intestinal features of this case were not at all typical.

The early symptoms resembled those of poliomyelitis, but the continued progressive neurological and gastro-intestinal symptoms did not fit into the picture of that disease.

Periarteritis nodosa was considered. The pathological report of the biopsy of the rectal mucosa and the appendix, however, made no remark about arteritis. A biopsy of skeletal muscle was recommended as an aid in the diagnosis of periarteritis nodosa or trichiniasis but the patient would not accede to this procedure.

Upon reviewing the case it is apparent that one significant point was not given due consideration in the differential diagnosis. That is the progressive nature of the symptoms in this case. Toxic neuronitis tends to get well. The likeness of the present case to others of periarteritis nodosa is striking. Cases have been reported which embody all the salient features of this case, including the asthma, neurological symptoms, gastro-intestinal symptoms and eosinophilia. In fact, the presence of this tetrad points strongly to the diagnosis of periarteritis nodosa.

Pathological Discussion (Abstract of remarks of Dr. H. T. Karsner). Periarteritis nodosa is an inflammatory disease of arteries which involves all layers of the vessels and is more accurately designated as a polyarteritis than a periarteritis. The lesions are characterized by arterial necrosis, infiltration of leucocytes, notably eosinophils, thrombosis, and aneurysm or pseudoaneurysm formation. The findings in this case are typical. The lesions are focal and have an irregular distribution. Consequently, the symptoms are extremely varied and cannot readily be grouped into characteristic syndromes. The manifestations are so diverse that they closely mimic many other diseases. Indeed, multiplicity and diversity of symptoms are in themselves suggestive of the diagnosis of periarteritis nodosa.

Precise methods of diagnosis can be helpful. Eosinophilia is an important sign and necessitates a consideration of the possibility of periarteritis nodosa. Diagnosis can be made by biopsy if the biopsy include portions of diseased vessels. However, the lesions are not uniformly distributed and a negative finding, as is the case with trichiniasis, does not rule out the diagnosis.

Attempts have been made to produce periarteritis nodosa experimentally but in spite of the fact that there are reports of the development of arteritis from the inoculation of human material it is doubtful that all the morphological criteria of periarteritis nodosa have been fulfilled.

Another form of arteritis which resembles periarteritis nodosa histologically is temporal arteritis. The resemblance, however, does not extend further. These cases exhibit localized inflammatory changes which after a period of time, perhaps several months, completely subside, while the outcome of the periarteritis nodosa, as far as is known, is uniformly fatal.

A Tuberculosis Service

A tuberculosis service is one which illustrates very clearly the emotional meaning of illness. If the diagnosis serves as an escape, the patient may accept a recommendation for sanatorium care very willingly. Since that is what may be most needed the accomplishment of this first step is usually considered helpful. Yet, if the motivating force of the patient's desire to get well is lacking, it may be difficult to arouse, and the benefits of sanatorium care may be less effective until this occurs. If the diagnosis means essentially a frustration, an interference with plans, the patient may react in many different ways. He may, and the big majority do, accept his problem and meet it to the best of his ability. Or, he may be very resentful, blaming his employer, his parents, his wife, the Deity, and society in general. Life has hurt him and he must hurt back. Or he may react by denying the existence of any trouble. He may say and believe that he feels better, that he can do more things, that his activities are increasing. . . . The function of the nurse (and the doctor) is to interpret the health needs and to help the patient consider them.—Dorothy I. Roberts, R.N., Pub. Health Nursing, Dec., 1941.

Choice of Anaesthesia in Emergency Surgery

Selection in anæsthesia for emergency surgery is important, because the patient is not prepared, often has a full stomach, and may be severely shocked. Consideration is suitable now on account of war circumstances. The following subjects are discussed: Shock, premedication; regional anæsthesia (local, block and spinal); general anæsthesia (inhalation and intravenous); deleterious actions of anæsthetics; methods of anæsthesia; and analeptics, of which a synergistic mixture of ephedrine and pituitary extract is recommended. Re inhalation anæsthesia, special mention is made of the closed intratracheal technique, the absorption of carbon diovide, and the use of cyclopropane. Short-acting barbiturates are very suitable for war surgery. It is the anæsthetist's selective duty carefully to manage the progress of anæsthesia, and, as well, to have a hand in the immediate postoperative care; the use of fluids, or oxygen and of drugs.—Wesley Bourne, M.D., Montreal, Canada. Jour. Mich. S.M.S., Vol. 41, No. 1, January, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

CIVILIAN HEALTH IN NATIONAL DEFENSE

The stem from which all manpower springs is the civilian population. The strength of the branch can be no greater than that of the stem. How strong is the stem? The findings of the National Health Survey made in 1935-36 give us some measure.

It may be estimated that 70 million sick persons each year lose over one billion days from work or customary activities and that the cost of illness and premature death in this country amounts annually to about ten billion dollars. The decline in the total death rate has been accomplished largely by life-saving in infancy and childhood, thus allowing larger numbers to reach the age of maturity. Consequently, there is an upward trend in disease of middle and old age, such as heart disease, nephritis, cancer and diabetes.

More than half of all tuberculosis deaths occur in the age group 15 to 45. This heavy loss comes approximately within the age limits for military service. And for every death there are approximately 10 clinical cases of illness from tuberculosis.

Disabling conditions among children, dental defects, venereal diseases, pneumonia, malaria and accidents are other leading causes of death and disability. The mental hospitals contain about half a million inmates with 50,000 on parole and about 75,000 patients are in institutions for the feeble-minded and epileptic.

Studies of the economic status of families shows a direct correlation of sickness with low income. Disability due to illness was nearly two and one-half times as great among persons in the income group under $1,200 (annually) as in the group above $3,000. When it is recalled that the low income groups constitute a large proportion of those who are employed in industries more or less directly connected with national defense, the losses sustained as a result of unnecessary illness may be regarded in the light of domestic sabotage.—K. E. Miller, M.D., Amer. Rev. of Tuber., Dec., 1941.

EXCLUDING TUBERCULOSIS FROM THE NAVY

Compactness of living spaces aboard a naval vessel is a necessity. Advances in ship construction from the standpoint of ventilation and sanitation in general have been made, but men living aboard are still somewhat crowded. Under such conditions an open case of tuberculosis is a real menace. Medical officers are on the alert, but the average sailor likes to think of himself as a rugged, hardy individual and will not, as a rule, report to the sick bay unless he really feels sick.

No applicant showing any degree of adult type tuberculosis is acceptable. Men in the service who develop tuberculosis are retired and are not subject to recall to active duty, even with long standing arrest and minimal lesions.

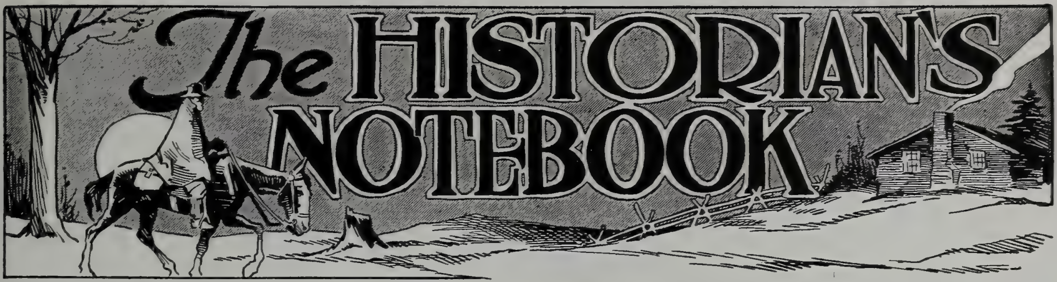
The medical department of the Navy has recognized that at least 30% to 40% of minimal cases will be missed by well-trained phthisiologists depending upon the conventional methods of physical examination alone. The criterion to be used in weeding out tuberculosis must be radiography. What form of radiography might be most practical for the Navy has been studied for some years. After carefully weighing the advantages and disadvantages of the several methods now available, fluorography with the 35mm film was found to be the best solution to the problem.

Speed is an important factor during a period of mobilization. A smooth working team can easily turn out from 100 to 150 films per hour. At present, examinations are not exceeding the rate of 80 per hour in the interest of careful posturing and some regard for the life of the X-ray tube.

However, these miniature films are not used for fine diagnostic work, but serve merely as a sieve to screen out the abnormal from the normal chest. In any case showing a lesion or even a questionable area, a standard 14x17 inch celluloid film is made for confirmation and accurate diagnosis. The method has definitely passed the experimental stage and it is ideal for mass thoracic survey work. At one training station photofluoroscopic examinations of 5,171 recruits were made. These men had already passed two stringent physical examinations. Yet, of these recruits, 15 men showing soft infiltration in the lungs and three with multiple calcification and fibrosis of a disqualifying extent were transferred to the hospital for further study and disposition.

The incidence of tuberculosis in the Navy during normal times is not high and has been steadily declining.—Robert E. Duncan, M.D., Amer. Rev. of Tuber., Dec., 1941.

In 1940 motor-vehicle accidents were the third most common cause of death among children 1-4 years of age in the United States; the first cause of death among children 5-14 years of age; the second cause of death in youths 15-24 years of age; and the fourth most important cause of death among persons from 25-44.



The HISTORIAN'S NOTEBOOK

Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Transfusion

ROBERTS BARTHALOW, A.M., M.D.
Prof. of Mat. Med. and Therapeutics in the Med. College of Ohio, Etc.

THE injection of healthy blood into the veins, to supply that which has been lost, or to relieve certain diseased states of that fluid, is an eminently practical measure, which merits attentive examination. For this operation blood of a healthy young adult must be taken. The blood of an animal will not suffice to supply the special needs of the human organism. As the red globules of the blood is the vivifying constituent of that fluid, and as the fibrin is non-essential, it is obvious that defibrinated blood may be used for transfusion. Fortunately, here experience coincides with theory. The injection of defibrinated blood produces all the marvelous results which can be obtained by the use of blood possessed of its fibrin, and the former is much less dangerous, for the introduction of clots into the circulation will be followed by the disastrous results of multiple embolisms. As Panum[1] has shown in his experimental researches, the introduction of clots of considerable size into the current of the circulation will cause death at once, or soon after, by obstruction of the pulmonary artery. It has been sought to avoid this danger by adding to the blood to be injected some carbonate of soda, or as Braxton Hicks suggests, some phosphate of soda, to prevent coagulation of the fibrin; but as the researches of Panum, Belina[2] and others have demonstrated the efficiency of defibrinated blood the practitioner is not justified in encountering the risks attendant on the use of blood containing its fibrin.

If properly performed, transfusion is not a dangerous operation. The principal dangers are the introduction of foreign bodies into the blood; the formation of clots; the entrance of air; and the occurrence of phlebitis. The most of these accidents are preventable. With a suitable apparatus, and the exercise of reasonable care, foreign bodies may be excluded, air prevented entering, and the danger of exciting phlebitis avoided. By the use of defibrinated blood, the formation of clots can hardly occur unless the temperature of the injected blood be permitted to fall considerably below that of the body.

MODE OF OPERATING

The apparatus required includes the following:

A deep bowl to receive the blood. This must stand in a basin of warm water.

An egg beater or a bundle of twigs for beating the blood as it flows in order to separate the fibrin.

A transfusion syringe holding about 6 ounces and a canula to fit the nozzle.

Venesection is practiced in the ordinary way on a healthy adult male, if the patient to be injected is a male and **vice versa**. The blood is received into the bowl standing in the basin of warm water, and beaten as it flows until the fibrin is separated. Meanwhile one of the veins of the elbow is exposed by dissecting away the skin overlying it. Two silk ligatures are then passed under the vein, and the lower one is drawn on sufficiently to prevent escape of blood when the vein is opened, but it should not be tied. A small oblique incision is then made in the vein, large enough to permit the insertion of the canula which is then fastened by the upper thread but without tying. A few drops of blood are permitted to escape through the canula to drive out the air. The defibrinated blood should be filtered through a fine cloth freed by careful washing of starch and adherent particles of lint. The syringe previously warmed should now be filled with blood, and in order to insure that no air is contained in the barrel or nozzle, the instrument should be inverted and the piston

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Reprinted from Cincinnati Medical Clinic, Volume I, pp. 1-3, 1871.

pushed up until the blood escapes from the nozzle. The next step consists in inserting the nozzle in the canula, and injecting, which should be done very gradually. All the blood in the syringe should not be emptied into the vein, but if necessary, the instrument should be removed and refilled. The injection should be suspended at once if dyspnoea occur. From four to eight ounces, is the amount usually required.

Belina[3] who has treated at length of the operative procedure has become fully convinced that all kinds of syringes employed for transfusion, are objectionable. This condemnation includes the syringes of Martin and of Eulenburg and Landoes with which transfusions have been successfully performed. He proposes for this purpose an apparatus which consists of an oblong flask having a capacity of 250 grammes, an india-rubber hand-ball connected with the flask at its upper extremity, a delivery tube attached to the bottom of the flask, and a trocar and canula. This apparatus although not the same in shape is identical in principle with the transfusion apparatus of Richardson of London.

It is certainly true that transfusion can be successfully performed with the very simplest means. Billroth[2], as well as Martin, used a glass syringe. The syringe known as the "universal syringe" if well constructed can be made use of in an emergency. The well known Davidson's syringe, if clean and in good order, is perfectly well adapted for this purpose, if the precautions already advised be taken to keep the defibrinated blood at the proper temperature and to prevent the entrance of air and foreign bodies. With the delivery tube of this syringe must be connected a canula containing a fine trocar. When the vein is punctured and the trocar is withdrawn and the canula attached to the tube, the precaution being taken to keep both full of blood.

Beside these, that ingenious instrument known as the "subcutaneous aspirator", is admirably arranged for the operation of transfusion.

THERAPY

It has been conclusively shown by Panum, Martin, Belina and others that the blood of one man injected into the veins of another will perform the same functions as that which it supplements. Transfusion is an eminently rational remedy, therefore, in cases in which hemorrhage has endangered life.

According to Belina, it is in hemorrhage from **abortion** and during the first months of pregnancy that transfusion is most successful. In 13 cases of hemorrhage after abortion thus treated, 11 had a fortunate issue. Of the cases in which transfusion was employed for **post partum hemorrhage**—85 in number, 56 resulted favorably. Routh's statistics based on cases connected with pregnancy and delivery, chiefly, are quite as favorable to this operation: of 40 cases treated by transfusion in the puerperal state, of which 29 terminated favorably.

According to Belina's statistics of traumatic hemorrhage treated by transfusion 12 were cured, 12 died and in two the result was doubtful.

Transfusion has also been employed as a remedy successfully, in certain **morbid states of the blood.** Of the cases belonging to this category 19 terminated favorably, in two the result was doubtful, in three temporary improvement followed, and in 39 death occurred. In cases of altered constitution of the blood, transfusion is employed with two definite objects; to save life endangered by loss of blood; to cure the morbid state of the blood by introducing into it, healthy vivifying elements. In cases of hemorrhagic diathesis, transfusion is used to accomplish both of these objects. The introduction of healthy blood not only arrests the hemorrhage, but improves the constitution of the existing elements so that the hemorrhagic state is permanently cured. Two very interesting cases of successful transfusion in intractible hemorrhage due to the hemorrhagic diathesis, have been reported by Dr. Joseph Buchser of New York[4]. It has been proposed by Eulenburg and Landois to substitute healthy blood for the diseased blood of certain morbid states, as scorbutus, leucocythemia, etc. The withdrawal by venesection of part of the diseased blood, is a necessary preliminary to the transfusion in these cases.

Eulenburg and Landois also advise transfusion as a remedy for cases of poisoning for which neither chemical nor physiological antidotes are available, life being in jeopardy from the damage done to the blood by poison. Prof. Dr. Theodore Jurgenson has recently reported[5] a successful case of transfusion for the **phosphorus poisoning.** He injected 250 cubic centimetres of defibrinated blood two months after the poisoning. Martin and Berlin and others have also used transfusion successfully in poisoning by **Carbonic Oxide.**

Cases of eclampsia due to uraemic poisoning have also in apparently hopeless states been cured by this means and Nussbaum reports that he has been completely successful in curing epilepsy by transfusion.

Prof. Albanese of Palermo, has proposed a new method of transfusion which he has designated "arterial transfusion". This consists in injecting defibrinated blood into an artery, either the radial or posterior tibial. The steps of this operation are the same as those for the intravenous injection. Huter has published in the **Archiv fur klin-Chirurg** successful cases performed in this way[6].

The reader need hardly be reminded that transfusion is not to be undertaken for insufficient reasons. It is to be practiced, only when other means fail to avert a fatal termination. The indications for its use are perfectly clear. Whilst on the one hand it should not be injudiciously employed; on the other the operation should not be too long delayed in those conditions which appear to demand it and for which it offers the only means of safety. The following summary includes the indications for transfusion, according to our present knowledge:

Hemorrhage, especially due to pregnancy and delivery, when so much blood has been lost as to put life in imminent jeopardy.

Intractable hemorrhages due to the so-called hemorrhagic diathesis.

Blood diseases, incurable by other means.

Poisoning in which such damage has been done to the blood globules as to be incompatible with life—poisoning by phosphorus, by carbonic oxide, etc.

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4. The Medical Record, New York, Oct. 1, 1869, p. 337, and May 1, 1871, p. 100.

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Fourth Annual Session of Medical History Committee Scheduled for April 1

The Committee on Medical History and Archives of the Ohio State Archaeologial and Historical Society will hold its Fourth Annual Meeting at the State Museum on the campus of Ohio State University, Columbus, Wednesday, April 1. The program will consist of a continuation of the study of Ohio Medical History during the period 1835-1858. Dr. Jonathan Forman will be chairman of the meeting. The tentative program follows:

"Contributions of Ohio Physicians to the Mexican War", Leon Goldman, M.D., Cincinnati.

"The Influence of Samuel Robinson Upon Ohio Medical Practice", Philip D. Jordan, Ph.D., Oxford.

The Introduction of the Microscope in Ohio", Russell L. Haden, M.D., Cleveland.

"Outstanding Medical Men in Ohio Masonry", James H. Tyler, M.D., Warren.

"The Formation of the Eclectic School in Cininnati", Ralph B. Taylor, M.D., Columbus.

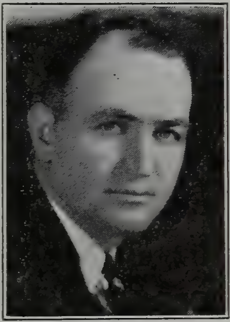
"Summary of the First Cholera Epidemic in Ohio and the Story of the Second Epidemic in Ohio", Edwin W. Mitchell, M.D., Cincinnati.

"The Dental Schools of Ohio Between 1835-1858", Edwin C. Mills, D.D.S., Columbus.

"Contributions of Ohio Physicians to the Natural History and Geological Surveys of Ohio", Edward S. Thomas, Columbus.

"The Thomsonian Recorder of Columbus and Alvin Curtiss", Jonathan Forman, M.D., Columbus.

Dr. Bigelow Named Dean, Succeeding Dr. Kemp Who Is Called To Active Military Service



DR. KEMP

Dr. Hardy Alfred Kemp, dean of the Ohio State University College of Medicine since September 1, 1941, and a major in the Medical Reserve Corps of the U.S. Army, has reported for active duty at the Army Medical School, Washington, D. C. Dr. Leslie L. Bigelow, professor of clinical surgery at Ohio State, and member of the medical faculty since 1914, has been named acting dean.

Formerly dean of the University of Vermont College of Medicine, Dr. Kemp is widely known for his work on endemic typhus and relapsing fever. Long engaged in research in diseases of the tropics, he was awarded a prize for research on relapsing fever by the Southern Medical Association in 1934. He is to teach tropical medicine at the Army Medical School.

A Fellow of the American Medical Association, Dr. Kemp is also a member of the Royal Society of Tropical Medicine and Hygiene; the American Association for the Advancement of Science; the American Association of Pathologists and Bacteriologists, the Society for Experimental Biology and Medicine and the American Society of Tropical Medicine.

A native of Columbus, Dr. Bigelow graduated at Harvard University Medical School in 1906. He began his teaching career at Ohio State as an instructor in surgery 28 years ago, and in 1938 was appointed to a full professorship in clinical surgery.

DR. BIGELOW

Dr. Bigelow is a former president of the Columbus Academy of Medicine and the Ohio State Medical Association. He has also served as chairman of the State Association's most important committees, including Publication, Medical Economics, and Judicial and Professional Relations. Dr. Bigelow is a Fellow of the American Medical Association and the American College of Surgeons. In 1940-1941, he was president of the Harvard Medical Alumni Association.

Corps Area and Ohio Committees Established To Cooperate with Procurement and Assignment Service; Newest Data About Forthcoming Enrollment Blank for all Doctors

MACHINERY for proper coordination and cooperation between the Procurement and Assignment Service for Physicians, Dentists and Veterinarians (through which the medical, dental, and veterinarian personnel needs of the Army, Navy, and governmental agencies will be met) and the medical, dental and veterinary professions of Ohio has been established.

A Committee on Procurement and Assignment for the Fifth Army Corps Area, composed of Ohio, Indiana, Kentucky, and West Virginia, has been appointed by the Procurement and Assignment Service with Dr. E. L. Henderson, Louisville, Kentucky, as chairman.

Other members of the Corps Area Committee are: Dr. Robert Conard, Wilmington, chairman of the Committee on Medical Preparedness of the Ohio State Medical Association, and Dr. Larue Carter, Indianapolis, representing the medical profession; Dr. Earl D. Lowry and Dr. Wendell D. Postle, Columbus, representing the dental profession; Dr. A. F. Schalk, Columbus, representing veterinary medicine; Dr. Robert H. Bishop, Cleveland, hospital representative; and Dr. Hardy A. Kemp, Columbus, representing medical education. Since the appointments were made Dr. Kemp has been granted a leave of absence as dean of the College of Medicine, Ohio State University, and is on active duty at the Army Medical School, Washington, D.C. His successor on the committee has not been named. Dr. Henderson, who heads the Corps Area Committee, is a member of the Committee on Medical Preparedness of the American Medical Association.

Function of Corps Area Committee—The Fifth Corps Area Committee will serve in an advisory capacity to the Procurement and Assignment Service in referene to questions relating to personnel in the four states and as a liaison with the Corps Area Surgeon's Office, Fort Hayes, Columbus. Each of the four states in the area will have state committees, one representing the medical profession, one the dental profession, and one veterinary medicine. These state committees will be advisory to the Corps Area Committee and cooperate in assembling data to determine the availability or unavailability of physicians, dentists and veterinarians for military or governmental service.

Ohio Committee Named—Dr. Conard has been designated chairman of the Ohio Procurement and Assignment Committee for Physicians. In compliance with instructions from Washington authorizing him to select the personnel of his Ohio committee, Dr. Conard has named the Committee on Medical Preparedness of the Ohio State Medical Association as his Ohio Procurement and Assignment Committee for Physicians.

PHYSICIANS UNDER 36 SHOULD ENROLL AT THIS TIME

Following is important official advice to all physicians from the Procurement and Assignment Service:

The present Army and Navy needs are for physicians under 36 years of age. Those under 36 desiring immediate commissions may write now to the Procurement and Assignment Service, 601 Pennsylvania Avenue N.W., Washington, D.C. Their letters will be treated as applications and those who are qualified will receive proper application forms with view of commission in the Army or the Navy.

All physicians OVER 36 should await the receipt of the NEW ENROLLMENT FORMS, mentioned in the accompanying article.

However, these facts should be kept in mind: All male physicians under 45 years of age now are liable for military service through Selective Service. That their services may be utilized in a professional capacity as officers they should be made available through the facilities of the Procurement and Assignment Service but AT PRESENT only those under 36 should enroll with that service, the others awaiting receipt of the new enrollment blank. When the new blank is in circulation, physicians OVER 45 YEARS OF AGE also should enroll as their services may be needed in governmental positions, providing they can be spared from essential civilian capacities.

Through this type of organization and with the assistance of the corps area and state committees, the Procurement and Assignment Service contemplates obtaining reliable information as to whether or not the medical and health needs of a community can be met in event one or several physicians are called to active military or governmental service and data which can be evaluated so as to avoid indiscriminate dislocation of practitioners who are in essential capacities in civilian practice.

Central Office and Roster—Headquarters office of the Procurement and Assignment Service is located at 601 Pennsylvania Avenue, N.W., Washington, D.C. The executive officer is Sam F. Seeley, M.D., Major, Medical Corps, United States Army. A consultant office has been established in the headquarters of the American Medical Association, Chicago, where pertinent information regarding all physicians is on file and which is being made available to Procurement and Assignment Service. In addition, the Procurement and Assignment Service has access to the National Roster of Scientific and Specialized Personnel, supervised by the National Resources Planning Board and the United States Civil Service Commission. Eventually the National Roster will be expanded to include the information now in the preparedness files of the American Medical Association and the national organizations of dentists and veterinarians.

Need for Medical Personnel—When the United States entered the war, there was an immediate need for medical personnel in the armed forces. That need has been or is being met from between 15,000 and 20,000 physicians who signed the Procurement and Assignment Enrollment Blank published on several occasions during December in *The Journal of the American Medical Association.* However, many of those who enrolled at that time are unavailable for active military service because of age or physical disability, or because they are engaged in essential capacities. It has been estimated that by the end of 1942 the Army alone will require the services of at least 23,000 physicians, between 9,000 to 10,000 more than the number now on active service. The needs of the Navy and governmental agencies are not included in the estimate of 23,000 medical officers.

New Enrollment Blank—Therefore, to meet the rapidly expanding needs of the armed forces and governmental agencies for medical personnel, the Procurement and Assignment Service is planning to issue a new special enrollment form and questionnaire to all physicians in the United States. These will be mailed directly to physicians just as soon as the preparation and printing of them can be completed.

Important data regarding the new form and questionnaire was contained in a statement issued by the Directing Board of the Procurement and Assignment Service, through Major Seeley, and published in the December 21 issue of *The Journal of the American Medical Association.* The following information was set forth:

The Procurement and Assignment Service, cooperating with the National Roster of Scientific and Specialized Personnel, has prepared special questionnaires for circulation to every physician, dentist and veterinarian in the United States. **Every physician, dentist and veterinarian, regardless of age, sex, physical condition, citizenship or employment, should fill out and return the enrollment form and the questionnaire.** Those physicians, dentists and veterinarians who have been commissioned in any United States service previous to the receipt of the enrollment form and questionnaire should so indicate under the heading "remarks" on the enrollment form.

The original questionnaire and enrollment forms previously circulated by the American Medical Association, the American Dental Association and the American Veterinary Medical Association are being utilized to meet requisitions from the armed services and other agencies, until the National Roster is complete and the Procurement and Assignment Service is working routinely. The additional information secured by the special questionnaire now to be described will bring up to date the facts necessary to place each physician, dentist and veterinarian in the work for which he is best qualified.

Roster Questionnaire—The questionnaire, as developed, includes space on which the physician, dentist or veterinarian will supply the usual data regarding name, address, date and place of birth, citizenship, marital status, race and sex, school of graduation, previous military service in the United States or in the armed forces of other countries, membership in the reserve corps or commissions in any branch of government service. Any additional information regarding special aptitudes, such as knowledge of aviation, radio or cryptanalysis, which might be of value, knowledge of foreign languages and foreign travel will also be included. Again, it should be emphasized, this information is sought to supplement information previously supplied on questionnnaires. It is recognized that the status of any physician, dentist or veterinarian may have changed materially since the time when previous questionnaires were submitted. The new questionnaire will also be tabulated in a special punch card system which will be coordinated with the punch card systems previously mentioned.

In the new questionnaire, opportunity is also given to state in detail appointments held in various local, industrial, state or governmental agencies, in civil practice, and in education and research. Specialization is recognized by appropriate designations which coordinate with certification of specialists by the certifying boards and also with appointments on the staffs of hospitals and other indications of special practice.

The method of practice, whether individual, in partnership or in groups is indicated. Finally an opportunity is given to every physician, dentist and veterinarian to indicate his preference as to the type of service which he will be capable of rendering to the United States during the war.

The Enrollment Form—On the enrollment form which comes with the questionnaire the physician, dentist or veterinarian voluntarily enrolls himself with the Procurement and Assignment Service. He indicates his first, second, third and fourth preference of the military, goverenmental, industrial or civil categories that may require his assistance.

Announcement will be made repeatedly in medical, dental and veterinary medical publications of the time when the circulation of the enrollment form and the questionnaire begins. When you receive your enrollment form and questionnaire, please act promptly. Those who fail to receive an enrollment form and questionnaire are requested to write to the National Roster of Scientific and Specialized Personnel, 916 G Street N.W., Washington, D.C., within six weeks after announcement has been made that the circulation has begun.

Certificate and Insignia—Physicians, dentists and veterinarians who enroll with the Procurement and Assignment Service will receive a numbered certificate indicating that they have made themselves available and will be privileged to wear insignia indicating that such enrollment has been made.

Will Serve All Agencies—All branches of the armed forces and all governmental agencies utilizing medical personnel must now obtain such personnel by filing requests with the Procurement and Assignment Service. When a request is received, the Procurement and Assignment Service selects from the list of physicians who have enrolled with it those who meet the specifications of the armed service or agency making the request. After obtaining data from the corps area and state committees as to the availability of such physicians, the Procurement and Assignment Service then certifies to the requisitioning service or agency the names of those who have been qualified and available.

How To Get Commission—In the future all applications for a commission filed by physicians directly with the Army or Navy, through corps areas or district commandants, will be forwarded to the Procurement and Assignment Service and such physicians will not be commissioned until official action has been taken by Procurement and Assignment Service endorsing them as available and qualified. Similar procedure will be followed by other agencies. Such agencies are: U. S. Public Health Service, U.S. Veterans' Administration, U.S. Civil Service Agencies, St. Elizabeth's Hospital, Washington, D.C. (resident staff and interns), U. S. Indian Service, Panama Canal Service, and Office of Civilian Defense (full time).

After the Procurement and Assignment Service has cleared the name of a physician applying for a commission in the Army or Navy as to his qualifications and availability and notified him of its action, subsequent negotiations are carried on for the most part by the proper officials of the Army and Navy. The same procedure is carried out with respect to those seeking appointments in governmental agencies.

THIS IS MUST READING!

For supplemental and more detailed information regarding the Procurement and Assignment Service readers of The Journal should refer to the article published in the February, 1942, issue of The Ohio State Medical Journal, pages 155-157, and an article appearing in the February 21, 1942, issue of The Journal of the American Medical Association, pages 625-638. Personal inquiries should be mailed to the Committee on Medical Preparedness, Ohio State Medical Association, 79 East State Street, Columbus, Ohio. That committee will endeavor to supply authentic answers or suggest where such information may be obtained.

What About the Draft?—An important cooperative arrangement has been worked out between the Selective Service System and the Procurement and Assignment Service. This is of particular importance to physicians under 45 years of age who are subject to Selective Service, especially whose numbers have been reached by local draft boards and who are awaiting classification.

The following memorandum has been issued by General Hershey, director of Selective Service, with reference to the coordination of Selective Selective Service with Procurement and Assignment Service:

"When considering the classification of any registrant who is a qualified medical doctor, dentist, or doctor of veterinary medicine, the Director of Selective Service desires that local boards, through the State Director, shall consult the Procurement and Assignment Committee of the Corps Area for information as to the availability of qualified medical doctors, dentists and doctors of veterinary medicine in the community. This information shall be considered by the local board in determining the registrant's classification. The Executive Order referred to in no way affects the authority of the Selective Service System to classify registrants. The procedure has been established for the purpose of making such information available to local boards."

Better Apply for Commission—Officials of the Ohio Selective Service Headquarters have advised that a physician who has been placed in Class 1-A by his local draft board and stands a chance of being inducted into the service should immediately apply for a commission in the Army or Navy. An application may be filed direct with the Procurement and Assignment Service, with the Fifth Corps Area Headquarters, Fort Hayes, Columbus, or with the Commandant, Ninth Naval District Naval Training Station, Great Lakes, Illinois.

If a physician can show that he has applied for a commission his local draft board can consider that as a basis for deferment—at least deferment until his application has been acted upon by the Army or Navy. A local draft board is the final authority regarding deferment of registrants but all local boards have been advised to give due consideration to the memorandum released by General Hershey (quoted above) in determining a physician's classification and to assist in coordinating the activities of Selective Service and the Procurement and Assignment Service.

April 6-10 Dates for Congress on Obstetrics and Gynecology

The Second Annual Congress on Obstetrics and Gynecology will be held in St. Louis, April 6-10, at the Municipal Auditorium. The Jefferson Hotel has been designated as the headquarters hotel for the Congress and for physicians who attend. Leading gynecologists, obstetricians, nurses, hospital administrators, public health officials and medical educators are participating in the program. In addition to the usual meetings, there will be roundtable discussions and practical demonstrations. A special feature of the Congress will be a daily consultation service at 3:30 P.M. About 50 nationally known physicians will make themselves available for 15-minute consultations, through a registration system, by individual practitioners who may desire advice on specific problems. Further information may be obtained by writing the central office of the Congress, 650 Rush St., Chicago.

Coming Meetings

Ohio State Medical Association, Columbus, April 28-30.

American Medical Association, Atlantic City, June 8-12.

American College of Physicians, St. Paul, April 20-24.

American Congress on Obstetrics and Gynecology, St. Louis, April 6-10.

American Association of Industrial Physicians and the American Industrial Hygiene Association, Cincinnati, April 13-17.

American Federation for Clinical Research, Minneapolis, April 20-21.

American Association of Anatomists, New York, April 1-3.

American Association of Pathologists and Bacteriologists, St. Louis, April 2-3.

American Physiological Society, Boston, March 30-April 4.

American Society for Experimental Pathology, Boston, April 1-3.

American Society for Pharmacology and Experimental Therapeutics, Boston, March 31-April 4.

American Surgical Association, New Orleans, April 6-8.

Federation of American Societies for Experimental Biology, Boston, March 31-April 4.

Industrial Medicine-Health Assembly

The American Association of Industrial Physicians and Surgeons, and the American Industrial Hygiene Association will hold a joint annual convention in Cincinnati, April 13 to 17. A program is in preparation in which important medical and hygienic problems associated with the present huge task of American industry will be presented and discussed in clinics, lectures, symposia, and scientific exhibits. Most of the subjects chosen for discussion will be of interest not only to physicians, but equally so to industrial engineers, and executives.

Official Program: The official program for the 96th Annual Meeting of the Ohio State Medical Association, April 28, 29, and 30, at the Neil House, Columbus, will be published in the April issue of The Ohio State Medical Journal. It will be one of the best in the history of the Association.

Rules As To Procedure For Physical Rehabilitation of Registrants Issued; Plan No Immediate Action in Ohio

BASIC regulations to govern the physical rehabilitation of registrants under the Selective Service Act who have correctible defects and could be made available for active military service have been established by General Lewis S. Hershey, Director of Selective Service.

No steps are being taken at present by the Ohio Headquarters, Selective Service, to put the rehabilitation program into effect in this state pursuant to orders received from General Hershey who stated that trial rehabilitation programs are being started in Maryland and Virginia and that other states would not be expected to undertake a rehabilitation plan until an opportunity had been afforded for study and evaluation of the Maryland and Virginia programs.

The regulations issued by General Hershey relating to rehabilitation of registrants which become a part of the Selective Service regulations are as follows:

REHABILITATION PROCEDURE

661.1. **Determination that registrant's defects are to be remedied.** When the Report of Physical Examination and Induction (Form 221) is received by the local board from the examining station of the armed forces with the certification that the registrant is physically and mentally qualified for military service after the satisfactory correction of certain specified remediable defects, and when the specified remediable defects are of the type which the Director of Selective Service has determined shall be remedied, the local board, in accordance with instructions issued and subject to limitations imposed by the Director of Selective Service, and with one or more of its examining physicians or dentists present as advisers, will consider whether it is practicable to remedy such defects of the registrant within a reasonable time and at a reasonable cost. If at this time or at any subsequent time there is not an agreement between the examining physician or dentist and the local board concerning the practicability of correcting such remediable defects of a registrant within a reasonable time and at a reasonable cost, the local board may send the record of the registrant or, if necessary, may send the registrant to the medical advisory board for an opinion from the appropriate member or members of that board and, giving consideration to such opinion but not being bound thereby, shall determine the course to be followed.

661.2. **Notice to registrant to appear for consultation.** If the local board decides that the remediable defects of any registrant are of a type which the Director of Selective Service has determined should be remedied and that such defects can be remedied within a reasonable time and at a reasonable cost, the local board will issue a Notice to Registrant to Appear for Consultation (Form 225) which will state the hour, date, and place the registrant shall report for conference with the local board.

661.3. **Conference with registrant and selection of physician, dentist or facility.** (a) When the registrant reports in accordance with a Notice to Registrant to Appear for Consultation (Form 225), at least one member of the local board and one or more of the examining physicians or dentists will confer with him for the purpose of making arrangements for his rehabilitation. If the registrant desires to have his defects remedied at his own expense, see 661.7.

(b) The registrant will be advised that he has certain remediable defects which may be remedied at government expense. He will also be advised that, if the defects are remedied, he will be returned to the examining station of the armed forces and, if found acceptable to them, will be forwarded for induction in the usual manner. He will be further advised that if he refuses to have his defects remedied, his defects may be waived and in such event he will be subject to induction into the armed forces.

(c) If a registrant agrees to have his defects remedied, he shall name a designated physician, dentist, or facility to undertake his rehabilitation: **Provided,** That the provisions of 661.4 do not apply: **And provided further,** That, if the registrant desires and requests the services of a physician, dentist or facility that has not been designated, the procedure prescribed in 661.21 will be followed, and the registrant must name a designated physician, dentist or facility as his second choice to perform the necessary services if the first named physician, dentist or facility is not accepted for designation. The local board, acting for the registrant, must name a designated physician, dentist or facility for the purpose of undertaking to remedy the registrant's defects (1) if the registrant fails or refuses to name a designated physician, dentist or facility, or (2) if the registrant names a physician, dentist or facility not designated but fails or refuses to name as his second choice one already designated and the one not designated named by the registrant fails to qualify for designation. When the local board is required to name a designated physician, dentist or facility, as above, it shall do so in the following manner: The record of designated physicians, dentists or facilities furnished the local board by the State Director of Selective Service shall be consulted and the first designated and qualified physician, dentist or facility whose name appears on that record with an office in or near the community in which the registrant lives shall be the first named, the second shall be the second named, the third shall be the third named, and so on consecutively until all such designated and qualified physicians, dentists or facilities have been used, and then the process shall start over again.

(d) The registrant shall execute, in triplicate, a Registrant's Rehabilitation Statement (Form 226). If he refuses to have his defects remedied, he shall state the reason for such refusal.

(e) The signature of the registrant upon the Registrant's Rehabilitation Statement (Form 226) shall be witnessed by a member of the local board and the examining physician or dentist.

(f) If the registrant names a designated physician or dentist who practices, or a designated facility which operates, outside the community in which he lives, and there is a designated physician, dentist or facility in the community in which he lives capable of rehabilitating him, authorization may be granted for the designated physician, dentist or facility so named: **Provided,** That such authorization shall not be made if it results in unnecessary delay in the rehabilitation of such registrant, and **Provided further,** That the expense of transportation to and from the designated physician, dentist or facility shall be borne by the registrant. If there is no designated physician, dentist or facility in the community in which the registrant lives who is qualified and willing to treat the registrant, necessary travel costs to and from the nearest community in which there is a designated physician, dentist or facility qualified and willing to undertake the registrant's rehabilitation will be borne by the Selective Service System, and Government Requests for Transportation (Standard Form No. 1030) and Government Request for Meals or Lodgings for Civilian Registrants (Form 256) may be issued.

661.4. **Use of Government facilities.** If the Director of Selective Service determines that the facilities of any department, bureau or agency of the Government of the United States should be used in rehabilitating the registrants in any community, such facility shall be used to the extent that the Director of Selective Service may direct.

661.5. **Inquiry for undertaking of services to physician, dentist or facility.** After the Registrant's Rehabilitation Statement (Form 226) is completed by a registrant who is to have his defects remedied, an Inquiry for Undertaking of Service (Form 227) shall be prepared by the local board, in quadruplicate. It shall be addressed to the designated physician, dentist or facility selected to render the service for a given registrant. It shall set forth the facts relevant to the defects of the registrant and the maximum fees allowable for the correction of such defects. It shall contain an inquiry as to the desire of the physician, dentist or facility to undertake the service indicated. If the physician, dentist or facility offers to perform the services, one copy of the Inquiry for Undertaking of Service (Form 227) will be retained by the physician, dentist or facility addressed, and the original and two re-

New Rules On Classification of Men With Defects

New rules regarding classifications of registrants with physical ailments have been issued by Selective Service System. In the future the following instructions will apply:

In Class 1-B shall be placed such registrants only who are found to be disqualified by irremediable defects but who are available for limited military service.

In Class 4-F shall be placed such registrants only who are found to be completely disqualified by physical or mental defects for any kind of military service.

In Class 1-A shall be placed all registrants found acceptable for general military service or found to have remediable defects but for which they would have been acceptable, and correction of which would qualify them as acceptable. Registrants with remediable defects are not subject to induction, however, until the defects are remedied or waived, or physical standards are modified.

The revised rules provide that if the blood of a registrant is truly positive for syphilis (by repeat test) he shall not be removed from Class 1-A if that was his classification but he shall not be available for induction until sufficient treatment has been given and his blood serology is negative, or until physical standards are amended. Procedure for necessary treatment has not been formulated.

maining copies will be signed and returned to the local board. The local board will forward the original and both copies of Inquiry for Undertaking of Service (Form 227), together with the Armed Forces' Original of the Report of Physical Examination and Induction (Form 221), to the State Director of Selective Service. The State Director of Selective Service shall indicate his approval, disapproval or desired modification on the original and both copies of the Inquiry for Undertaking of Service (Form 227), retain the original and return both copies, together with the Armed Forces' Original of the Report of Physi- Examination and Induction (Form 221), to the the local board. If the State Director of Selective Service has indicated his approval on the copies of the Inquiry for Undertaking of Service (Form 227), the local board shall forward the approved copy bearing the signature of the State Director of Selective Service to the designated physician, dentist or facility, and such approved copy will constitute authority to render the indicated service. If modifications are made by the State Director of Selective Service, the Inquiry for Undertaking of Service (Form 227), with such modifications, will be resubmitted to the designated physician, dentist or facility concerned for approval.

661.6. **Order to registrant to have defects remedied.** When the local board has received an approved copy of the Inquiry for Undertaking of Service (Form 227), it shall complete and mail to the registrant an Order to Registrant to Have Defects Remedied (Form 228).

661.7. **Procedure when registrant desires to have his defects remedied at his own expense.** If a registrant desires to have his defects remedied at his own expense, he may do so without reference to the foregoing procedure; **Provided,** That a program for remedying the defects is presented which is satisfactory to the local board. In such a case the program will be outlined in the Registrant's Rehabilitation Statement (Form 226) and will include arrangements to keep the local board advised of the registrant's progress. If at any time after making such an arrangement, the registrant fails or refuses to have his defects remedied in the manner agreed upon, the local board may take the steps outlined in 661.12.

DISPOSITION OF REHABILITATED REGISTRANT AND REGISTRANT WHO REFUSES TO HAVE DEFECTS REMEDIED

661.11. **Submission of rehabilitated registrant for further physical examination by the armed forces.** (a) The local board will keep informed as to the progress of the registrant while his defects are being remedied. When the registrant's rehabilitation will take more than thirty days the local board will furnish the physician, dentist or facility with sufficient Progress Reports of Rehabilitation (Form 229) so that one of such forms can be completed and returned to the local board each thirty days after the commencement of rehabilitation. A Report of Completion of Rehabilitation (Form 230) shall be filled out and forwarded to the local board by the physician, dentist or facility when the registrant's rehabilitation has been completed. When the physician, dentist or facility which has undertaken to remedy the registrant's defects has forwarded the local board a Report of Completion of Rehabilitation (Form 230), the local board will direct the registrant to appear before the examining physician or dentist of the local board and, in doubtful cases, to appear before the medical advisory board. When the local board is satisfied, from the report of the examining physician or dentist or the medical advisory board, that the remediable defects which were specified in the certificate of the examinging station of the armed forces have been remedied, it shall again forward the registrant for physical examination by the armed forces in the manner provided in Part 629; provided that if the effective period for the former physical examination by the armed forces has expired, but not otherwise, it shall prepare a new Report of Physical Examination and Induction (Form 221), the Armed Forces' Original and all copies of which shall be forwarded with the registrant in addition to the Armed Forces' Original of the former Report of Physical Examination and Induction (Form 221). Upon the return from the examining station of the armed forces of the Armed Forces' Original and all copies of the corrected or new Report of Physical Examination and Induction (Form 221), or both, the local board will proceed in the manner provided by 629.31.

(b) The local board will forward all completed Reports of Completion of Rehabilitation (Form 230) to the State Director of Selective Service for transmittal to the Director of Selective Service.

661.12. **Procedure where registrant refuses or fails to have his defects remedied.** If the registrant refuses or fails to have his defects remedied, the local board will forward to the State Director of Selective Service the original and one copy of the Registrant's Rehabilitation Statement (Form 226), the Armed Forces' Original of the registrant's Report of Physical Examination and Induction (Form 221) and its recommendation as to the disposition of the matter. Upon receipt thereof, the State Director of Selective Service will either return the file to the local board with further instructions or forward the file, together with his own recommendation, to the Director of Selective Service, or, if so instructed by the Director of Selective Service, to the Corps Area Commander (or representative of the Navy or Marine Corps).

DESIGNATION AND PAYMENT OF PHYSICIANS, DENTISTS AND FACILITIES

661.21. **Designated physicians, dentists and facilities.** (a) The Director of Selective Service shall prepare and maintain a record of designated physicians, dentists and facilities for the nation. The State Director of Selective Service shall maintain a record of designated physicians, dentists and facilities for his state. He shall furnish each local board with a record of designated physicians, dentists and facilities in or near the community in which each local board is located. If a physician, dentist or facility whose name is not included in the record of designated physicians, dentists or facilities is named by a registrant or makes a request to be designated, the local board shall endeavor to secure a written application from such physician, dentist or facility. The local board shall forward any application it receives, together with its recommendation thereon, to the State Director of Selective Service.

(b) When the application is received by the State Director of Selective Service, he shall make a thorough investigation as to the applicant's professional and ethical standing in the community. If, after investigation, he is of the opinion that the applicant is qualified, he shall add the name of the applicant to the record of designated physicians, dentists or facilities and so advise the local boards affected. The name and address of each such physician, dentist or facility, together with the application, report of investigation made, and the action taken thereon by the State Director of Selective Service, shall be forwarded to the Director of Selective Service. In the absence of comment by the Director of Selective Service, such physician, dentist or facility shall thereafter be a designated physician, dentist or facility. The Director of Selective Service will notify the State Director of Selective Service in the event of nonconcurrence in the designation of a given physician, dentist or facility.

(c) Nothing herein contained shall prohibit any physician or dentist who is now or may hereafter be appointed an examining physician or dentist or a member of a medical advisory board from applying to the State Director of Selective Service to have his name placed in the record of designated physicians or dentists. Upon the receipt of such an application, the procedure prescribed in (b) above will be followed. If the name of such examining physician or dentist or member of a medical advisory board is placed in such record, he shall receive payment for authorized rehabilitation services in the same manner as any other designated physician or dentist, and the Waiver of Pay or Compensation portion of the Oath of Office and Waiver of Pay or Compensation (Form 21) executed by the examining physician or dentist or member of the medical advisory board shall not operate to prohibit such physician or dentist or member of the medical advisory board from receiving compensation from remedying the defects of a registrant. His services as a designated physician or dentist will be apart from and in addition to, his present duties as an examining physician or dentist or member of a medical advisory board, which latter duty will remain on an uncompensated basis.

(d) Any designated physician, dentist or facility may be utilized by any local board in the Selective Service System. [See, however, 661.3 (f).]

(e) A State Director of Selective Service who has reason to believe that a designated physician, dentist or facility does not have the necessary qualifications will suspend such physician, dentist or facility and will report the reason therefor and his recommendation thereon to the Director of Selective Service.

(f) The name of any physician, dentist or facility may be added to or removed from the

Army Physical Rules as To Teeth and Eyes Liberalized

Dental and visual requirements of the Army for general military service have been liberalized, Selective Service System has announced.

All new registrants and those now in deferred classifications will be regarded as fit for general military service in all branches if they have no disqualifying physical defects except a lack of the required number of teeth, when, in the opinion of the examing physician, they are well nourished, of good musculature, are free of gross dental infections, and have sufficient teeth (natural or artificial) to subsist on the Army rations.

Registrants will be regarded as fit for general military service in all noncombatant branches so far as vision is concerned if their visual acuity is not below 20/200 in each eye without glasses if correctible to 20/40 in each eye. The actual possession of suitable glasses by a registrant is not required for his acceptance under these standards.

All registrants now in Class 1-B or Class 4-F by reason of deficiencies in teeth or eyesight will be reclassified in Class 1-A and will be re-examined on the basis of the liberalized requirements.

record of designated physicians, dentists or facilities by the Director of Selective Service, either with or without a recommendation from a State Director of Selective Service.

661 22. **Schedule of fees for the Selective Service System.** The Director of Selective Service, from time to time, will publish and circulate schedules of fees which will state the maximum amounts allowable for the services of any physician, dentist or facility in remedying the defects of a registrant. These amounts will in no case be exceeded unless specifically authorized under instructions issued by the Director of Selective Service. When services not contained in the schedule of fees are necessary, such services may be authorized and the fees to be paid therefor in each instance fixed by the Director of Selective Service. Payment will not be authorized for any services rendered in remedying the defects of a registrant which are not authorized in accordance with instructions contained in this part, unless payment for such services is specifically approved by the Director of Selective Service either prior to or subsequent to the performance of such services.

661.23. **Procedure for payment of fees.** Bills for payment of fees authorized to be charged for services rendered in remedying the defects of a registrant should be certified in the manner prescribed in 608.5 and presented, in triplicate, to the local board, which, if it finds that the authorized services have been performed, will indicate its approval on the original and both copies of the bill, retain one copy thereof, and forward the original and second copy thereof to the State procurement officer. In vouchering such bills, the State procurement officer shall use Public Voucher for Purchases and Services Other Than Personal (Standard Form 1034), which will be prepared in the manner prescribed in 608.31.

Better Get Hotel Room Now!

Physicians planning to attend the 93rd Annual Session of the American Medical Association at Atlantic City, June 8-12, are urged to make hotel reservations at once. Requests should be addressed to Dr. V. Earl Johnson, Chairman, Hotel Committee, 16 Central Pier, Atlantic City. A list of Atlantic City hotels and their rates appeared on page 34 of the back advertising section of the January 31 issue, *The Journal of the A.M.A.*

War Medical Topics To Be Discussed at Columbus Meeting, March 13, of College of Surgeons

On Friday, March 13, the American College of Surgeons will sponsor an all-day session at the Deshler-Wallick Hotel, Columbus, to be devoted to panel and roundtable discussions of topics related to medicine and surgery in military service and civilian defense. The Board of Regents of the College has voted to dispense with the usual Spring sectional meetings, and to replace them with approximately 30 "War Sessions" throughout the country. Ohio and West Virginia physicians are invited to attend the Columbus meeting.

The United States Army, the Navy, Office of Civilian Defense and the Procurement and Assignment Service are cooperating with the College of Surgeons to present at these meetings the latest and most authentic scientific information on war medicine and surgery, particularly with respect to treatment of wounds of soft parts, burns, shock, hemorrhage, fractures and injuries to the head and chest. Organization and functions of the medical departments of the Army and Navy, procurement of personnel, and the role of the doctor in civilian defense will also be discussed. Simultaneously there will be similar meetings for hospital representatives.

The Army will be represented at the Columbus meeting by Major Roger G. Prentiss, Jr., of the Medical Corps and the Navy by Captain Frederick R. Hook, chief of surgical service, U.S. Naval Hospital, Washington, D. C. The Office of Civilian Defense will be represented by Dr. William S. Keller, regional medical officer and the Procurement and Assignment Service by Major Sam F. Seeley, executive officer or by a specially appointed delegate.

Other participants will be a number of well-known physicians and surgeons not in federal service. The Columbus meeting will begin at 9:00 A.M., and continue throughout the day until 10:00 P.M. All members of the medical profession are invited. Further details may be obtained by writing the American College of Surgeons, 40 E. Erie St., Chicago.

Medical Movies: There will be a continuous program of medical and health movies during the 1942 Annual Meeting of the Ohio State Medical Association, April 28-30, in Columbus. This will be an Annual Meeting innovation. Every member should plan now to see these pictures. A schedule will appear in the program.

WAR NOTES

PLANS for a concentrated war-time curriculum, as advocated by the Association of American Medical Colleges, have been finally completed at Ohio State University College of Medicine and tentatively completed at University of Cincinnati College of Medicine and Western Reserve University School of Medicine, according to statements from the deans' offices.

The new freshman class will be admitted at Ohio State on June 23, and upperclassmen will continue through the summer in the work in which they are engaged. Present seniors will then graduate at the end of the next winter quarter, and each succeeding graduating class will move up one quarter. In other words a class of new physicians will be graduated every nine months, and a new freshman class will be admitted every nine months. This will make it possible to complete the medical course in approximately 36 months of consecutive work, with the intervals between quarters the only vacation periods.

The School of Medicine at Western Reserve University plans to admit this year's freshmen on June 22 and to run continuously with brief intermissions for refitting. According to Dr. Torald Sollmann, dean, the college has not as yet "concluded on the exact length of the cycles, but the course will take approximately three years". Final plans will probably be announced in a few weeks.

The next session of the University of Cincinnati College of Medicine will begin either on June 29 or July 6. A new class will be admitted every nine months, and the college will run continuously for the duration. The school year will consist of two semesters of 16 weeks, and four weeks will be allotted each year for vacation. Thus the present four-year course will be completed in exactly 36 months. This plan is awaiting approval by the Faculty Council, but no major changes are anticipated.

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A rival for the low-pressure, low-temperature apparatus in the aero-medical research laboratory at Wright Field is being constructed in a new building adjacent to the laboratories of the Division of Industrial Hygiene, Bethesda, Md. Until this is completed, the air corps field at Dayton and the Banting Institute at Toronto, Canada, boast the two best equipped laboratories for medical research of the effects of modern flight on human beings.

Dr. Fred Rankin, Lexington, Ky., President-Elect of the American Medical Association, has been called to active duty in the office of the Surgeon General of the Army. He will serve as consulting surgeon, with the rank of colonel.

* * *

Add interesting communications from the theater of operations:

"Editor, Ohio State Medical Journal.

Dear Sir:—The Journal arrived this morning (Vol. 38, No. 1) and it is just like a letter from home, as I am personally acquainted with many of those who have contributed articles. The Journal is my personal reference for latest methods and I depend on it out here in the field where we forego the pleasure of a library. The censorship prevents me from writing such things as I feel might be of greatest interest. My humble apologies for this stationery (he wrote on the mailing envelope of The Journal—Ed.); our clerks are busy preparing reports, etc., for things to come (we hope they won't come).

Yours very truly,
Clyde J. Cranston, M.D."

Maj. Cranston, an Army Medical Corps officer stationed at Wailuku, Maui, Hawaii, mailed the foregoing note via Clipper plane on February 5. He was recently promoted from the rank of Captain. His home is in Wakeman and he is a graduate of Western Reserve University School of Medicine, class of 1924.

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Within recent weeks both the War and Navy Departments have changed regulations to make it possible for freshmen and sophomores in Class A medical schools as well as pre-medical students who have been accepted by Class A schools to obtain commissions as second lieutenants in the Medical Administrative Corps of the Army or as ensigns in the Medical Reserve Corps of the Navy. These commissions had previously been offered only to juniors and seniors in Class A medical colleges.

Students who hold such commissions are under the jurisdiction of the Army and Navy and will not be inducted by the Selective Service System. It is the policy of the War and Navy Departments not to call them for active duty until they have completed their medical courses and 12 months of internship.

Men who desire commissions as second lieutenants in the Army's Medical Administrative Corps should apply through their deans' offices to the corps area surgeons of the corps areas in which they reside. Upon graduation they should apply to the Adjutant General of the Army for commissions as first lieutenants in the Medical Corps.

Applications for provisional commissions as ensigns in the Naval Reserve, Class H-V (P), should be made directly to the commandant of the naval district in which the applicants reside.

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Dr. Grace Haskin, of Cleveland, has enlisted with the British Emergency Medical Service as one of the second group of 10 American women physicians accepted for war service under the "Doctors for Britain" project.

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Twelve Ohio nurses accompanied the American troops who were sent to North Ireland, according to Associated Press reports. Among them were: Mary Armstrong, Beverly; Agnes Casserly, Columbus; Katherine Wellman, Defiance; Vera Everly, Toledo; Janet Harrington, Lyndhurst; Dorothy Dibble, Youngstown; Maureen Martin, Bellefontaine; Florence McBride, Youngstown; Frances Crone, Ashland; Antoinette D'Orio, Canton; Juanita Bronson, Bucyrus; and Freda Teheil, Lowelville.

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In recent weeks the following Ohio physicians in military service have been promoted to the ranks designated:

Lt. Comdr. Robert W. Babione, of Luckey; Lt. Herbert Warm, Hamilton, in the Navy Medical Corps.

Lt. Col. Neville H. McNerney, Cleveland; Lt. Col. E. J. Curtiss, Lima.

Maj. Herman E. Wilkinson, Van Wert; Maj. Walter B. Johnston, Lakewood; Maj. Alexander Miller, Cleveland; Maj. Robert L. Johnston, Silverton; Maj. Joseph J. Brumbaugh, Canton; Maj. Norman W. Thiessen, Cleveland; Maj. L. E. Lieder, Cleveland; Maj. A. H. Herr, Cleveland; Maj. Earl E. Smith, Shaker Heights; Maj. Chester H. Allen, Portsmouth; Maj. Glenn U. Dorroh, Fort Hayes; Maj. Elmer J. Rodenberg, Columbus; Maj. Beecher L. Smith, Columbus; Maj. Paul Jones, Stockdale; Maj. Ward A. Fritz, Wooster.

Capt. Samuel Epstein, Struthers; Capt. Harold F. Wherley, Columbus; Capt. A. P. D'Amore, Masury; Capt. N. M. Newport, Zanesville; Capt. R. Frank Donley, Columbus; Capt. John T. Crone, Milford; Capt. Wilfred I. Carney, Youngstown; Capt. Alexander N. Davis, Dayton; Capt. G. G. Floridis, Dayton; Capt. Samuel D. Goldberg, Youngstown; Capt. Richard C. Carlisle, Columbus; Capt. Perry D. Berger, Englewood; Capt. Richard L. Meiling, Columbus; Capt. Hugh C. Dorr, Columbus; Capt. A. A. Pimsner, Cleveland; Capt. Louis Pillersdorf, Cleveland; Capt. John W. Doering, Logan; Capt. S. R. Cafaro, Youngstown; Capt. W. Max Brown, Mansfield; Capt. Harold J. Abrams, Cleveland Heights; Capt. L. O. Fasoldt, Glendale; Capt. M. David Burnstine, Columbus; Capt. John G. Goldcamp, Youngstown; Capt. J. J. Del Vecchio, Yorkville; Capt. A. L. Berndt, Portsmouth; Capt. W. A. Cunningham, Steubenville; Capt. J. E. Dougherty, Canton.

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Lt. John G. Feder, of the Navy Medical Corps, is the first Ohio medical officer taken prisoner by the enemy from whom communication has been received. Lt. Feder, a 1934 graduate of Ohio State University College of Medicine, has notified his wife in Atlanta, Ga., and his parents in Galloway that he is "safe and well" at Zentsuji war prisoners' camp on the Island of Shikoku. His message from the prisoners' camp was broadcast by the Japanese radio and picked up by a San Francisco listening post. Dr. Feder was captured when the Japanese forces took Guam, where he was on naval duty. A former intern at St. Luke's Hospital, Cleveland, Dr. Feder was at Duke University before he went on active naval duty in 1939.

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The War Department recently announced that it will provide all persons in military service with spectacles when required and will replace lenses and frames damaged or lost through performance of military duty. These glasses will conform to specifications to be issued by the Surgeon General, and those who desire different kinds must pay for them.

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Plans are being pushed ahead for formation of an Army Base Hospital Unit by the University of Cincinnati College of Medicine and Cincinnati General Hospital. According to statements by Dr. Stanley Dorst, dean of the college and chief of staff at the hospital, the unit will probably include about 60 physicians and perhaps as many as 120 nurses. Dr. B. N. Carter is to head the surgical staff, and Dr. Johnson McGuire will be chief of the medical division, according to present plans.

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Among the romantically dangerous jobs done by Ohio physicians in the war is that of Dr. Victor Haas, of Cincinnati, who is in charge of the health protection of nearly 500,000 Chinese coolies working on construction of the Yunnan-Burma Railroad, a vital supplementary facility to China's supply lifeline, the Burma Road. Dr. Haas, 33-year-old graduate of the University of Cincinnati College of Medicine, Class of 1931, was loaned for this work to China by the U.S. Public Health Service. His extensive experience with malaria and plague is chiefly responsible for his appointment to the post in China. Authorities consider the problem he faces there similar in many ways to the problem of malaria control which faced builders of the Panama Canal. Mrs. Haas is with him in China.

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Dr. Ivor McIvor Campbell, Akron, who is in the medical service of the Royal Canadian Air Force, has been promoted from Fying Officer to Flight Lieutenant.

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Among Ohio physicians recently called to active military duty are the following: Navy—Lt. Comdr. E. Herndon Hudson, Athens; Lt. Robert R. Crawford, Mansfield; Lt. Comdr. Samuel C. Lind, Cleveland; Lt. Comdr. M. A. Thomas, Cleveland; and Lt. (j.g.) Charles H. Duncan, Cincinnati. Dr. Duncan was ordered to Charleston, S.C.; the others reported at Great Lakes, Ill.

Army—Maj. Sloane Wilson, Columbus; Capt. Wilbur Stoughton, Columbus; Capt. Dan Morse, Columbus; Lt. G. E. Obrist, Portsmouth; Lt. William Becker, Toledo; Lt. Harold R. Rossmiller, Cleveland; and Lt. Anthony M. Tanno, Cleveland. Lts. Rossmiller and Tanno were ordered to Fort Benjamin Harrison, Ind. Maj. Wilson and Capt. Morse were ordered to Camp Shelby, Miss., and Lt. Becker was sent to Fort Knox, Ky. Information regarding assignments of the others has not been received at State Association Headquarters.

* * *

Special surgical training for nurses anticipating war duty has been started by the University of Cincinnati School of Nursing and Health. Graduate nurses with acceptable credentials are enrolled for a four months' course in the operaing room pavilion of Cincinnati General Hospital and are provided with board, room and laundry service. Nurses wishing to apply for this special wartime training may do so through Miss Helen G. Schwartz, director of the school and director of nursing at the hospital.

* * *

Maj. Harry G. Armstrong, founder of the aeromedical research laboratory at Wright Field, was recently awarded the John Jeffries annual award for outstanding contribution to the advancement of aeronautics through medical research, which is given through the Institute of Aeronautical Sciences. Maj. Armstrong is now director of research at the Army School of Aviation Medicine, Randolph Field, Texas, having left the Dayton post in 1940. The Jeffries award was conferred on the medical officer for his pioneer investigations of the physiological and psychic effects of high-altitude and high-speed aviation maneuvers.

Instructions for procuring and storing narcotics for use in civilian defense programs in instances where field casualty services are not related to hospitals have been forwarded to regional medical officers by Dr. George Baehr, chief medical officer of the Office of Civilian Defense. Under ruling of the U. S. Commissioner of Narcotics, such drugs must be stored in local police stations when medical field units are not related to hospitals. They may not be stored in medical depots, casualty stations, or first-aid posts.

The police officer in charge is responsible for the narcotics during time of storage and he may issue them to the properly designated medical officer upon obtaining a memorandum receipt for them. A physician attached to each medical depot is to be designated as responsible for storage, requisitioning, and accountability of the narcotics for the depot.

Upon completion of work connected with civilian casualities for which narcotics are required, the designated medical officer will return unused portions of the drugs to the police station and make proper notations on the memorandum receipt. Use of morphine in this work is to be entered in the casualty record book, and this will satisfy the record requirements of the Narcotic Act.

Narcotics required by medical field units should be procured by the designated officer of each medical depot from a licensed wholesaler after the requisition has been approved by the regional medical officer. Physicians designated as being responsible for the drugs should be registered under the Harrison Act; if they are not, they should obtain letters from regional medical officers addressed to the Collector of Internal Revenue requesting exemption certificates, which must accompany requisitions for the drugs sent to wholesalers.

The communication from Dr. Baehr requests that morphine stocks be conserved by submitting requisitions for minimum amounts.

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Maj. Carl S. Junkermann, Columbus physician now at Camp Shelby, Miss., is co-author of an article on reasons for rejections of selectees at army induction stations which appears in the January-February issue of *War Medicine*, the medical military magazine published by the American Medical Association and the National Research Council.

* * *

Dr. Morton Hamburger, Cincinnati internist, was recently appointed to the position of field director of the Commission on Cross Infection in Hospitals, a special agency set up by the War Department through its Board of Investigation and Control of Influenza and Other Epidemic Diseases. Dr. Hamburger, who has served several times appeared as speaker on the Regional Postgraduate Lecture series of the Ohio State Medical Association, was appointed by Dr. Francis G. Blake, professor of medicine at Yale University and chairman of the Board. He has recently been engaged in study of the sulfonamides in association with Dr. Marion A. Blankenhorn, Cincinnati.

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Soldiers' identification tags now carry the individual's blood type and the date of completed tetanus immunization in addition to other important information, according to recent Army announcement. The tags are made of stainless, rustproof monel metal instead of aluminum, which was the metal used in the first World War.

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A note from Mrs. J. B. Goodman, mother of Dr. Julien M. Goodman, Cleveland, tells that he was last heard from prior to December 7, at which time he was serving at the Station Hospital, Rizal, Philippine Islands, as an officer of the 12th Medical Regiment, Fort McKinley.

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Among the Ohio physicians who are known to be in military service at stations outside the continental United States are: Dr. D. M. Creamer, Bellaire; Dr. J. B. Edelstein, Toledo; Dr. William M. Shapiro, Toledo; Dr. Russell L. Shively, Celina; Dr. Joseph D. Vande Velde, Cleveland; and Dr. William Alvin White, Jr., Canton.

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Immunization against typhus, cholera, and human bubonic plague has been ordered for all Army personnel who may be assigned to areas where they are exposed to these diseases, according to a circular letter from the Surgeon General. Typhus immunization was ordered for Army personnel stationed in or traveling through Asia, Africa, continental Europe, and other places where the disease is epidemic; cholera immunization was ordered for Army personnel stationed in or traveling through Asia; and plague immunization was ordered for personnel "under serious threat of exposure".

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Col. C. W. Goble, Ohio Selective Service Director, recently instructed local draft boards to issue no further enlistment permits to registrants who have been ordered up for physical examination. Exceptions to this ruling may be made in the cases of candidates for appointment to officer's training and aviation cadets. Draft boards are specifically forbidden to issue such permits if they interfere with fulfillment of quotas.

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Lt. Col. Stanley G. Odom is new commanding officer of the Fort Hayes (Columbus) hospital, succeeding Maj. Philip P. Pease, who was ordered to duty at Sheppard Field, Texas. Colonel Odom, who has been in the army medical corps for a number of years, received part of his training as an intern at Cincinnati.

* * *

Dr. E. Harlan Wilson, Columbus, recently embarked by Clipper plane for London, via Lisbon, to join the staff of the American Hospital in Britain. He will inaugurate a four months' rotation of American surgeons at the English institution. While in England, he will serve with his brother, Dr. Philip D. Wilson, who is serving as medical director of the hospital. Dr. Harlan Wilson is one of 50 American physicians, nurses, and technicians who are being sent to England by American headquarters of the privately endowed hospital.

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Dependents of any man in the armed forces who becomes a victim of infantile paralysis may be aided by chapters of the National Foundation for Infantile Paralysis, it was announced by foundation officers in connection with the President's Birthday observance. This action lifts the previous restrictions on use of foundation funds, which required that they be spent in the care of persons affected, purchase of equipment, and research. This new use was considered a "contribution to national defense".

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The 1511th Service Unit, Medical Examining Board No. 7, formerly known as Fort Thomas, Ky., induction station, was to have been moved to Cincinnati by March 1, according to newspaper announcements. New address of the examining board was to be the Woodford Bldg., 424 E. 4th St. In the future it is planned to take all Cincinnati and Southern Ohio selectees directly to the new Cincinnati address for medical examination. Fort Thomas, however, will remain the induction station and reception center.

Quiz Sessions: One of the features of the program for the 1942 Annual Meeting of the Ohio State Medical Association, April 28-30, Columbus, will be the Quiz Sessions. At these informal gatherings, the guest speakers and prominent Ohio doctors will submit to questions and attempt to provide helpful answers.

Don't Delay in Making Hotel Reservations for the 1942 Annual Meeting in Columbus on April 28, 29 and 30!

HAVE you reserved hotel accommodations for the Ninety-Sixth Annual Meeting of the Ohio State Medical Association, to be held at the Neil House, Columbus, Tuesday, Wednesday and Thursday, April 28-30? If not, you should do so immediately, using the accompanying reservation blank.

Headquarters for the meeting will be at the Neil House, a hotel with excellent accommodations. While Columbus has many fine hotels, with splendid facilities, members should keep in mind that state meetings held in the Capital City are always the best attended.

Requests for reservations should be addressed to the management of the hotel selected.

Following is a list of Columbus hotels, their location and room rates:

NAME AND LOCATION	No of Rooms	Single	Double	Double Twin Beds	Suites
NEIL HOUSE (Headquarters Hotel) 35 South High St.	665	$3.30-5.50	$4.95-6.60	$5.50-7.70	$8.80 and up
DESHLER-WALLICK Broad and High Sts.	1000	3.30-7.70	4.95-11.00	5.50-11.00	8.80 to 19.80
FORT HAYES 31 W. Spring St.	350	2.50-3 50	4.00-6.00	4.00-8.00	7.00 to 18.00
CHITTENDEN High and Spring Sts.	275	2.50-3.00	3 00-4.00	3.50-6.00	
SENECA 361 E. Broad St.	250	2.50-3.50	3.75-5.00	5.00-5 50	3.75 to 8.00 (Single) 5.50 to 10.00 (Double)
SOUTHERN High and Main Sts.	250	2.00-3.00	3.00-4.50	4.00-4.50	
VIRGINIA Third and Gay Sts.	150	2.20 and up	3.30 and up	4.40 and up	
BROAD-LINCOLN 631 E. Broad St.	140	2.00 and up plus 10%	3.00 and up plus 10%	4.50 and up plus 10%	3.50 and up plus 10%

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager..Hotel, Columbus, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, April 28-30, 1942, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:..............................

☐ Twin Bed Room with bath ☐ Suite

Arriving April....................at..............................A.M..............................P.M.

PLEASE VERIFY MY RESERVATION.

Name..

Address..

....

Eleven Distinguished Guest Speakers To Appear on Program For Annual Meeting in Columbus, April 28, 29 and 30

HEADING the program for the Ninety-Sixth Annual Meeting of the Ohio State Medical Association, April 28-30, at Columbus, is the greatest array of out-of-state guest speakers ever presented by the Association.

Ten distinguished physicians and scientists have been selected by the Committee on Scientific Work to address General Sessions, and following a custom of years' standing, the Section on Eye, Ear, Nose and Throat has invited a guest speaker to address that section. All are outstanding in their respective fields.

These talented speakers will also participate in the Quiz-Discussion Sessions, another feature of the 1942 meeting. The quiz-discussion groups will be led by guest speakers and other qualified physicians. They will give those who attend the meeting an opportunity to have questions that may have arisen in their minds following attendance at the General Sessions, answered informally. Each quiz-discussion group will have a competent moderator who will assign the questions to members of his panel. It is the hope of the committee that this informal type of conference, with everyone having a chance to ask questions on subjects in which he is especially interested, will prove one of the most popular features of the Annual Meeting.

A brief biographical sketch of each guest speaker, title of his address, and time of his appearance on the program, follow:

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Chemotherapy

Chester S. Keefer, M.D., Boston, Wade professor of medicine, Boston University School of Medicine will address the First General Session Tuesday afternoon, April 28, from 2 to 2:30 o'clock, on "Chemotherapy", and will also participate in a quiz-discussion on the same subject Tuesday evening at 8:30 o'clock. A graduate of Johns Hopkins University School of Medicine in 1922, Dr. Keefer is director of the Evans Memorial Hospital and physician-in-chief of the Massachusetts Memorial Hospitals, Boston. He is a Fellow of the American Medical Association and the American College of Physicians, and a member of the Association of American Physicians and American Society for Clinical Investigation.

DR. KEEFER

Parenteral Feeding

"Simplified Parenteral Feeding Before and After Operation", is the subject to be discussed by **Frederick A. Coller,** M.D., Ann Arbor, professor of surgery and chairman, department of surgery, University of Michigan Medical School, at the First General Session, Tuesday afternoon, April 28, from 2:30 to 3 o'clock. He will also take part in a quiz-discussion on "Preoperative and Postoperative Care", at 8:30 o'clock that evening. Dr. Coller graduated at the Harvard University Medical School in 1912. He is chief surgeon at the University Hospital, Ann Arbor. Dr. Coller is a Fellow of the American Medical Association; member of the American Surgical Association, Society for Clinical Surgery, Southern Surgical Association, Western Surgical Association and the Central Surgical Association.

DR. COLLER

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Rheumatoid Arthritis

From 4 o'clock until 4:30, Tuesday afternoon, April 28, **Richard H. Freyberg,** M.D., Ann Arbor, assistant professor of internal medicine, University of Michigan Medical School, will address the First General Session, on "Recent Trends in the Treatment of Rheumatoid Arthritis". He will also appear on the quiz-discussion program on "Chemotherapy", at 8:30 o'clock Tuesday evening. A graduate of the University of Michigan Medical School in 1930, Dr. Freyberg is research director of the Rackham Arthritis Research Unit, University Hospitals, Ann Arbor. He is a Fellow of the American Medical Association; associate, American College of Physicians; member, American Rheumatism Association, American Society for Clinical Investigation and the Central Society for Clinical Research.

DR. FREYBERG

Epilepsy and Migraine

DR. LENNOX

William G. Lennox, M.D., Boston, assistant professor of neurology, Harvard University Medical School, will be the final speaker at the First General Session, Tuesday afternoon, April 28. From 4 until 4:30, he will lecture on "New Light on Epilepsy and Migraine", and at 8:30 that same day will take part in a quiz-discussion on "Nervous and Mental Diseases". Dr. Lennox graduated at Harvard University Medical School in 1913. He is visiting neurologist at Boston City Hospital. A Fellow of the American Medical Association, Dr. Lennox is also a member of the American Neurological Association, American Psychiatric Association, International League Against Epilepsy and the Association for Research in Nervous and Mental Diseases.

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Physical Therapy

DR. KRUSEN

Frank H. Krusen, M.D., Rochester, Minn., head of the section on physical therapy, Mayo Clinic, will open the Third General Session, Thursday afternoon, April 30, at 2 o'clock, with an address on "Physical Therapy in General Practice", and will also be one of the speakers at the quiz-discussion on "Physiotherapy", to be held at 4 o'clock Thursday afternoon. Dr. Krusen graduated at Jefferson Medical College in 1921. He is professor of physical medicine at the Mayo Foundation, University of Minnesota. Dr. Krusen is a Fellow of the American College of Physician's and the American Medical Association and a member of the Council on Physical Therapy and the Committee on American Health Resorts of the A.M.A. He is a past-president of the American Congress of Physical Therapy; past-president of the Academy of Physical Medicine, and a member of the Sub-Committee on Physical Therapy of the National Research Council.

Ocular Infections

DR. BRALEY

Guest speaker at the meeting of the Section on Eye, Ear, Nose and Throat, Wednesday morning, April 29, at 9:30 o'clock will be **Alson E. Braley**, M.D., New York, who will speak on "Sulfonamides in the Treatment of Ocular Infections". He will also participate in the quiz-discussion on "Chemotherapy", Tuesday evening, at 8:30. A graduate of the State University of Iowa College of Medicine in 1931, Dr. Braley is assistant professor of ophthalmology, Columbia University College of Physicians and Surgeons, and assistant attending ophthalmologist, Presbyterian Hospital, New York City. Dr. Braley is a Fellow of the American Medical Association; member of the American Academy of Ophthalmology and Otolaryngology, Association for Research in Ophthalmology and Sigma Xi.

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Ageing

DR. COWDRY

The closing address at the Second General Session on Wednesday, April 29, will be made by **E. V. Cowdry**, Ph.D., St. Louis, professor of anatomy, Washington University School of Medicine, on "Factors in Ageing of the Human Body". He will also participate in the quiz-discussion on "Nutrition and National Defense", at 8:30 o'clock that same evening. A graduate of the University of Toronto in 1909, with a Ph.D., from the University of Chicago in 1912, Dr. Cowdry is director of research, Barnard Free Skin and Cancer Hospital and anthropologist to Barnes, St. Louis Children's and St. Louis Maternity Hospitals. He is a member of the American Association of Anatomists, American Academy of Tropical Medicine, American Society for Cancer Research, and the American Society of Zoologists.

Heart Disease

DR. SOSMAN

"Observations on Curable Heart Disease", is the subject to be discussed by **Merrill C. Sosman,** M.D., Boston, clinical professor of roentgenology, Harvard University Medical School, at the Third General Session, Thursday afternoon, April 30, from 2:30 to 3 o'clock. He will participate in a quiz-discussion on "Physiotherapy", at 4 o'clock that afternoon. Roentgenologist-in-chief at Peter Bent Brigham Hospital, Boston, Dr. Sosman graduated at Johns Hopkins University School of Medicine in 1917. He is a Fellow of the American Medical Association; member of the New England Heart Association and the Radiological Society of North America; member and past-president, American Roentgen Ray Society, New England Roentgen Ray Society and the Harvey Cushing Society.

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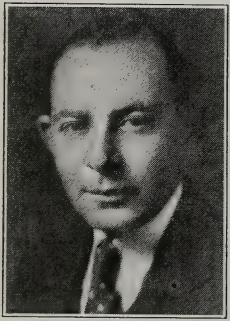
Hypertension



DR. HARRISON

"Hypertensions: Some Recent Advances", is the subject to be discussed by **Tinsley R. Harrison,** M.D., Winston-Salem, N. C., at the Second General Session, Wednesday afternoon, April 29, from 2:30 to 3 o'clock. He is also scheduled on the quiz-discussion program on "General Medical Problems", 8:30, Wednesday evening. Dr. Harrison is professor of medicine at the Bowman Gray School of Medicine of Wake Forest College. He graduated at Johns Hopkins University School of Medicine in 1922, and is a Fellow of the American Medical Association; member of the Association of American Physicians, Southern Medical Association and the American Society for Clinical Investigation.

Isotopes

DR. LAWRENCE

The final address at the Third General Session, Thursday afternoon, April 30, will be by **John H. Lawrence,** M.D., San Francisco, on the subject "The Clinical Application of Artificial Radioactivity". He will speak from 3 o'clock until 3:30. Dr. Lawrence will also take part in a quiz-discussion on "Physiotherapy", at 4 o'clock Thursday afternoon. A graduate of Harvard University Medical School in 1930, he is director of medical research, Crocker Radiation Laboratory, Berkeley, Calif. Dr. Lawrence is a member of the staff of University of California Hospital and the Alameda County Hospital. He is a member of the American Society of Clinical Investigation and the American Medical Association.

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National Defense

Colonel L. G. Rowntree, M.C., U.S. Army, Washington, D.C., will speak on "Health and National Defense", from 4 o'clock to 4:30, at the Second General Session, Wednesday afternoon, April 29. Col. Rowntree, who is chief, Medical Division, National Headquarters, Selective Service System, will also take part in a quiz-discussion on "Nutrition and National Defense", 8:30 o'clock, Wednesday evening. Director of the Philadelphia Institute of Medical Research, he graduated at the University of Western Ontario Medical School in 1905 and received an Sc.D. degree from the same institution in 1916. Col. Rowntree is a Fellow of the American Medical Association and the American College of Physicians; member, American College of Physicians, American Institute of Nutrition, American Society of Clinical Investigation, American Association of Physicians, American Society of Pharmacology and Experimental Therapy and other scientific societies.

Educational Exhibits: Presentation of exhibits on the diagnosis and treatment of diseases and disabilities of current interest will be one of the outstanding features of the 96th Annual Meeting of the Ohio State Medical Association, April 28-30, in Columbus.

A Formula-Controlled Medical Care Plan

Report on Delaware County Program To Provide Medical Services for the Needy

G. F. MOENCH, B.A., M.Sc.P.H., M.D.

AT the beginning of 1940 the problem of medical care for the indigent in Delaware County had become important enough to demand cooperative community action. The problem and its ramifications were approached in a manner typical of a community with civic minded leaders and professional groups:—through cooperative application of a suitable plan.

After a study of a great number of medical relief plans, the one selected as most adaptable to the city and county of Delaware, and the one which seemed to approach the solution in the most satisfactory and democratic manner, was the plan developed by Dr. Nathan Sinai and Dr. Margaret F. Hall, faculty members and research workers at the University of Michigan. It had been established experimentally and operated with success in Ontario, Canada, by the Ontario Medical Society and R. E. Holmes, M.D.

LIMITED SERVICE AT PRESENT

It was recognized that complete medical service must be accompanied by hospitalization and special and surgical service in order to furnish a comprehensive program of adequate care for the indigent. However, in adapting the plan selected to Delaware County, the service was limited to medical and emergency surgical services. Upon completion of successful experience within these limits, the growth and expansion of the plan to include complete medical care will be largely one of economics and administrative consideration.

In summarizing the problem as it existed at that time in Delaware County—and probably in other sections of the state as well—the following points might be made: First, adequate medical care should be available to all people. Second, any plan for this purpose must be simple from an administrative viewpoint and founded on democratic principles. Third, the medical profession must assume responsibility for the standards of medical practice and must cooperate in providing adequate medical services with a minimum abuse of the plan, giving due consideration to the question of costs and the application of sound business principles.

The adoption of the selected plan by the Delaware County Medical Society, the city and county relief authorities, the county commissioners, and the mayor and his board of relief advisors represented the cooperative effort of a community to solve its own problem of medical care for the indigent. This was the first known attempt in the United States to use in its entirety the plan which had worked successfully for several years in Canada. After a year's operation in Delaware City and County, it may be said that the plan is as adaptable to relatively small populations where relief loads average 50 to several hundred as it was in Canada, where the relief load was about 20,000.

Editor's Note:

● At the time Dr. Moench prepared the accompanying article he was the health commissioner of Delaware County and the City of Delaware, Ohio. About February 1, he resigned and accepted a position as acting director of the Calhoun County (Michigan) Health Department, a unit of the Michigan Community Health Project of the W. K. Kellogg Foundation. The accompanying article was written by Dr. Moench at the request of the Committee on Poor Relief of the Ohio State Medical Association and it is published at the request of that committee. The purpose in publishing it is to provide officers and committees of various county medical societies first-hand information as to how the medical profession and relief authorities of Delaware County have cooperated in endeavoring to provide the needy of that county with adequate medical care at a reasonable cost and with a minimum of administrative red tape.

PRINCIPLES OF PLAN

The principles upon which the plan operates assume:

1. That the money for medical services will be pooled in a central fund, and in the case of indigent relief this comes from the Welfare Department.
2. The method for paying physicians for their services will be based on a specific fee for a specific service, according to the regular fee level generally prevalent among physicians in private practice in the community.
3. Each relief client for whom contributions are made or assumed will have the privilege of choosing his physician.

A three-man Medical Indigent Relief Committee was elected by the medical society to take charge of the program as to adequacy of medical care and fee schedules and to act as a public relations board in dealing, not only with members of the profession, but also with officials of other organizations and with individuals otherwise concerned. This committee was elected by secret ballot, and the members serve terms of one, two, and three years, thus assuring continuity and smooth operation. Its present members are Dr. D. S. James, president of the society; Dr. Wray Davies, and Dr. Harold Davis. The writer served as a consultant.

USE IBM PUNCH CARDS

The plan involves the use of the punch card which may be coded, punched, and sorted by International Business Machines for quick, accurate, time-saving administration. This one card, simply filled in and signed by the physician, serves as a case record, patient identification, and fee statement, and, when filled in with a diagnosis, represents the total required effort on the part of the physician in rendering his monthly statement. This procedure greatly minimizes the red tape and clerical demands of both physicians and relief directors.

From the data recovered from the punch card by this procedure three statistical formulas may be prepared each month and applied to the individual physician's pattern of practice in comparison with the pattern of the group of physicians as a whole.

Equation No. 1 shows the relationship between the actual patients treated during the month and the potential patients. Potential patients are those who have signified a particular physician as the family doctor. This choice of physician is made by the client when he is first certified to relief, and may be changed at any time by reporting to the relief office and choosing another physician. **This formula describes the incidence of illness.**

Equation No. 2 shows the relationship between the number of patients treated and the number of calls made by the doctors in the given period. How many calls does a physician usually make in treating a given number of patients? **This is termed the call rate and is the extent of services in the phase of the pattern of the physician's practice.**

Equation No. 3 shows the relationship between the number of calls made and the fee claimed, which has been determined from former fee schedules based on types of calls. How are a physician's calls distributed with respect to home, office, and night calls? **This relationship describes another phase in the pattern of the physician's practice, the type of service given.**

The use of the statistical formulas entirely relieves the committee of responsibility of determination of the amount to which any or all fee statements might be adjusted, thus insuring an equitable and fair distribution of funds and minimizing possible causes of dissatisfaction on the part of physicians.

In the absence of a large enough number of patients on relief each month to develop satisfactory, workable formulas, the physicians' committee may pass on the individual statements rendered. Then, quarterly, semi-annually, or annually the formulas may be applied to the larger group of cards or fee statements, and the results used as a check on how well the relief committee has functioned in rendering judgment each month.

COMMITTEE OF PHYSICIANS

In the Delaware City and County experience the relief committee passed each month on the statements of physicians. At the end of the year the record cards were punched and sorted, and the formulas applied. It was noted that the application of the formulas on the year's experience showed a reduction in reported fees of physicians in every case that the medical relief committee found it necessary to reduce the amount of the fee. The only difference was in the amount of reduction. The formulas reduced some of the reported fees more than the committee did. However, the committee realized that in some instances it was unduly liberal, but for educational purposes it was lenient during this early period of the experience.

When Formula No. 1 was applied for checking purposes it was found that for every 1,000 persons who had chosen a certain physician we could expect 140 to 150 to be ill during each month. If a physician's report showed he treated 300 persons out of the 1,000 who chose him for the month it was recognized that this particular physician was probably abusing the plan in that he treated patients who were not ill or failed to control or discipline his patients in their requests or demands for medical service. The penalty for this abuse would be the reduction of the 300 reported patients treated to 150 or to whatever the pattern number shown for the group as a whole might be for the month. The responsibility for adequate medical care and control of patient's demands therefore rests with the physician. It permits the older, well-established doctor to render adequate medical care to his patients, and does not limit the younger, less-confident physician if the latter chooses to give a reasonable amount of extra attention and added service.

FORMULA SHOWS CALL RATE

In the application of the second formula, dealing with the call rate in the extent of medical services, it was found that in the pattern of practice of the physicians as a whole, a certain number of calls are made in treating each specific illness. For example, it was found that in acute bronchitis the pattern of practice of all physicians averaged two calls. However, some cases of bronchitis are more severe and some are milder than the average case, and a number of physicians reported three calls or one call. In consideration of the more severe cases of acute bronchitis, the formula for this illness becomes two calls plus or minus one. This means that all physicians reporting one, two, or three calls for a case of acute bronchitis would be paid in full. However, the physician failing to make or return the correct diagnosis or attempting to abuse the plan by reporting six calls would have his reported calls reduced to two allowed calls. Thus, the physician attempting to practice within the pattern is paid for his more severe case but the physician who abuses is penalized.

In applying the third control formula it was found that the type of service rendered, that is, home, office, or night calls, may vary in different localities. The proportion of home calls to office calls in Delaware was about one to two. Night calls were almost neglible, being about one per cent of all types of calls. This low figure for the night calls is believed to be due to the fact that persons can obtain the services of a physician in the daytime or go to the office, minimizing night calls on an emergency basis.

In the analysis of the pattern of the physician's practice, it was found that less than 10 per cent of the physicians were penalized because individual patterns fell outside and above the average for the group as a whole. It was further observed that this practice on the part of these physicians was not peculiar to the indigent practice, because many of this 10 per cent of physicians showed a tendency to follow the same individual pattern of practice with their private pay patients. The application of the formulas for control of practice does not set prices or fees for the individual doctor falling in this group, but does place him on an equal rating basis with the majority of the physicians in his community. This eliminates many regulations and restrictions which, in some plans, become necessary and very troublesome to the physician, the patient, and the relief director. The formulas, therefore, encourage and make easier the practice of the large majority of physicians, and restrict and penalize abuses and violations, intentional or unintentional, by the 10 per cent or less.

TWO CARDS USED

The program of acquainting physicians in Delaware County with the techniques and procedures of the plan was as follows: A sheet of "Directions and Instructions" was sent by the Relief Office to each physician as soon as a relief client had signified his intention and chosen a particular physician as his family doctor.

Two cards are used by the physician. The first card is known as the "family relief or identification card" issued to the eligible client by the relief director at the time of registration. The client is instructed to take this card to the selected physician within a reasonably short time. If for any reason, personal or otherwise, this physician does not choose to act as family physician for the client, he may diplomatically advise the client to return to the relief office and choose another physician. If the physician accepts the responsibility of medical care for the family, he takes up the client's identification card and places it in his active file. In the event of illness in this family, the physician is called by the client, the doctor responds promptly with the full knowledge that the relief department will honor the fee bill for his services. If at any time the family should be removed from the relief rolls before the end of the month or during the month, the relief director notifies the physician by telephone, or by mail, advising him to change "Mr. Roe's" identification card from his active to his inactive file. Thus the physician is protected, the client is assured of a physician, and each has a free choice in participating in the plan. The relief director is not called by clients and physicians in the middle of the night for authorization of medical care. The standard of medical practice in the community is raised because there are no long delays or procrastination. Obviously a client who cannot buy groceries, pay rent, and furnish the bare necessities of life, certainly cannot afford to pay for medical protection. Recognition of this fact by relief officials simplifies the problem of administration.

The second card used by the physician is the "report card" which provides spaces for information about the patient—age, sex, occupation, address, marital status, cause, diagnosis, and location of the disease or illness, and services rendered. Space also is provided for number and dates of calls, amounts of fee, disposition of the case at the end of the month as to recovery, continuation or death, illness, whether chronic or acute, drugs, whether dispensed or prescribed, and signature of the physician rendering the service or to whom the case is referred.

MONTHLY REPORTS

Each person to whom service is rendered by the physician during the month has a card filled out for each illness, with the information so designated in the several fields or spaces for the purpose.

The physician's report cards are filled in, signed and delivered or sent to the relief office by the 25th of the month. This allows for the pre-audit of the relief department's auditor before the first of the next month, and gives the medical committee two or three days in which to meet and review or punch and sort the cards.

Calls or visits made after the 25th of the month may be included in the next month's bills.

Questions in regard to any of the procedures may be referred to the medical relief committee or to the consultant. There have been practically no calls for assistance on the part of Delaware physicians in making out the cards, and there have been few mistakes where physicians had read the instructions.

The data sorted and supplied by the information on the cards are used to make up the monthly formulas and also for comparison and study of various illnesses and their incidence in a community. Some very interesting and helpful medical and health facts have been disclosed in these studies.

LATE REPORTING

After three months' operation the committee found it necessary to enforce the suggested regulation that fee bills of physicians not rendered by the end of the month be disallowed. The reason for this was that the plan was operating on an estimated cost-per-month basis and any excess in the contracted amount resulted in the pro-rating of the physicians bills. It was found that on the fourth month so many bills had accumulated as late bills that it was necessary for about a 30 per cent reduction on a pro-rated basis. The doctors' accounts were all paid in full the first month with a balance which became cumulative and carried over to be used the next month. The second month the balance and the month's allowance were used up. The third month so many old statements came in that prorating was necessary. Since the committee announced to the physicians that all late bills would be disallowed for payment, there have been very few late fee bills rendered. Of course patience and consideration were extended in a reasonable degree by the committee and the relief director in a sincere effort to foster the educational factor in the project.

Rules and regulations and matters of policy were considered by the committee as the problems arose. These were, of course, discussed with the other physicians in case of questions of the adequacy of medical care and with the relief office or other agency when the problem did not come within the jurisdiction of the medical society.

The general policy under which the committee functioned was that of providing adequate medical care with conservation of the tax funds so as to serve as many cases as possible; authorizing special procedures where there was reasonable assurance of saving life or curing; and limiting service in cases described as hopeless or incurable. For both the city and county the International Business Machine tabulation of the cards shows that 56.7 per cent of the cases treated were acute, 39.6 per cent were chronic, and 3.7 per cent were not indicated. Many of the chronic cases were limited to one or two calls per month because of the very poor prognosis for doing more than relieving some pain and suffering. This shows that the Delaware physicians were not providing unnecessary treatment for old chronic cases.

DRUGS FURNISHED

In regard to furnishing drugs and medicine, results of the sorting showed that only 2.2 per cent received prescriptions, 82.4 per cent had medicine dispensed by the physician, and 15.4 per cent were not indicated. This latter group might well be added to the 82.4 per cent which received medicine from the physician because no supplemental statement came through the relief office.

The cost per patient treated was $9.61. Families with one person in the family, with two in the family and with six in the family numbered about one-half the total number of patients. The seven-in-the-family cost per patient was the lowest—$8.47 per patient. In general the cost per patient in the various sized families was slightly higher in the county than in the city due to extra cost of mileage.

The cost of strictly medical service was 66 cents per person per month for both males and females. There are, however, 16 other services listed as medical services by the State Welfare Department regulations. These include consultation, surgical, fracture-dislocation, anesthesia, post-operative treatment, cystoscopy, refraction, pre-natal care, confinements, post-partum, X-ray, physiotherapy, rest home care, dental service, prophylactic, and ambulance service.

It therefore becomes apparent that in discussing the cost of medical care per person on relief per month or per year, there must be a careful definition as to the services included in the cost and the groups considered eligible. For instance, the average length of time a family is on relief is 90 days. If a family in private employment or on WPA is certified for supplementation by medical relief only, the time rarely extends over 30 days. If the estimated cost of medical care per person per month is based on the average of a three-month period on relief, every supplementation patient certified markedly increases the average monthly cost per person on relief.

FEMALE COSTS HIGHER

In a study where all of the above services were considered as medical care it was found that 65.3 per cent of the total costs were required by the female group and 34.7 per cent by the male group.

Comparing the cost by age groups it was found that 44.4 per cent of the total services rendered in the City of Delaware were granted to persons within the 60 to 85 year age limits, and a breakdown of this group by sex as to cost showed

73.5 per cent was required by the female group and 26.5 per cent by the males.

In this same study with a maximum case load in any one month the average cost per person was $1.48 per person, and with the minimum case load in any month in the period the average cost per person increased to $2.99. This study indicates clearly the fallacy of attempting arbitrarily to place a limit or stable proportion in the relationship existing in the per cent of medical relief as compared to the total per cent of all other forms of relief. The 15 per cent limit for medical service, which is often selected, might be ample when the relief load is great, and all forms of assistance are in demand, but it becomes inadequate as persons leave the relief rolls by reason of employment. They first assume personal responsibility for food, housing, and shelter, but if sickness comes into the family, they have not sufficiently recovered, or saved enough money to pay for adequate medical care. Therefore, medical costs may be expected to rise in a period of growing prosperity in proportion to total of other costs of relief.

AID-FOR-AGED GRANTS

Further consideration of the older age group shows that in Delaware City over 30 per cent of the total costs for medical service was authorized as supplementation to recipients of Aid-for-Aged grants. This division apparently provides more adequately than any other of the Welfare Department, because a definite amount is provided in the individual grants for medical care and is paid to the recipient at the rate of two dollars per month. If the amount allowed in the budgets for this group could be controlled or pooled, supplementation from other sources would be reduced to a minimum. Delaware County has about 800 persons receiving Aid-for-Aged grants. A $2.00 per month per person sum, if pooled and paid out under a statistically controlled medical plan, amounts to $1,600 per month or $19,200 per year available for medical care. Such a plan would tend to effect the following desirable results:

1. Assure adequate medical care.
2. Provide rest home care and hospitalization.
3. Avoid duplication of services by social agencies.
4. Assure prompt compensation to physicians for services rendered.

This pooling, or withholding, of funds is not possible under the system of Federal matching of state funds, since Federal Aid-for-Aged regulations require that the funds must be paid directly to the recipient as grants.

OUTSIDE PHYSICIANS PARTICIPATE

Another question of interest to physicians, and often discussed whenever a plan for medical indigent care is presented, is that of whether physicians outside the local county should participate in the program. A study of the Delaware experience shows that 52 per cent of the city physicians were chosen by 83.2 per cent of the potential patients and served 79.8 per cent of the reported patients in the medically indigent group.

While 23 per cent of the physicians participating in the program were outside the county they were chosen by only 5 per cent of the potential patients and they treated only 6.2 per cent of the reported patients, so that 93.8 per cent of the medical care was rendered by Delaware City and County physicians. The policy adopted by the medical committee was to pay or authorize payment of mileage from the residence of the patient to that of the nearest physician. Persons living in villages near a county line were often closer to a physician in the next county. This policy encouraged the use of the local and available doctors in the community.

In regard to types of services rendered 81 per cent were classified as medical and 9.6 per cent were surgical. When sorted as to diagnosis, skin diseases ranked first with 19.1 per cent, respiratory diseases were second, with 15.6 per cent and circulatory diseases were third with 12.6 per cent.

This explanation and report of the Delaware City and County medical relief experience is of necessity rather sketchy and incomplete. The data have been presented with the desire and the hope that at least some parts of the procedures may be helpful in analyzing and solving some of the problems and difficulties which may exist in other communities. The development and the adoption of the medical relief plan which forms the basis for the Delaware experience is the result of no one person's efforts. It is the growth and development and coordination of thought and effort on the part of many people in widely scattered areas.

During 1941 satisfactory operation continued in Delaware City and County, with the general feeling that it is long past the experimental stage. Within the last year, Union County and Marion County have instituted this same plan.

ADVANTAGES SUMMARIZED

In summary, several statements are listed which in the light of experience are apparently justified:

1. The plan permits the free choice of a physician by the patient and permits the physician a choice in the matter of participation.
2. The care of indigent is a community obligation and as such becomes a tax supported program.
3. Participation is limited to physicians licensed by the State of Ohio.
4. Adequate medical care has been available to all persons whose wants have been known.
5. The adequacy of medical care is a respon-

sibility of the physicians in the local community, who have complete charge of the professional medical administration.

6. Relief directors have been responsible only for determining the eligibility of persons for relief.

7. There has been no influence or interference because of religious or political prejudice.

8. Physicians have received every 30 days a reasonable compensation for specific services.

9. The standard of the practice of medicine has been maintained because a diagnosis is the basis of payment for services rendered.

10. Analysis and comparison of the patterns of illness have been of definite benefit in evaluating public health problems.

11. Records, figures, and principles have been established which serve as a measure not only for adequate medical care but also as assistance in evaluating the spread of the tax dollar and the potential need for greater effort in certain fields of endeavor.

12. Personalities need not enter into the judgment in regard to determining the amount of an individual physician's fee bills for specific services rendered. Statistical formulas can do this work.

13. The plan has worked successfully in case loads of 50 to 500 relief persons as well as in a community where the relief load numbered 15,000 persons, and it is, therefore, adaptable to either rural or urban practice.

14. The plan encourages the large majority of physicians who are within the average pattern of practice, and penalizes the relatively few who would abuse any plan if not controlled.

15. Social problems of delinquency are reduced, and stronger healthier, happier people may be developed.

16. The use of the International Business Machine punch cards and sorters, greatly reduces costs of clerical work and facilitates administration programs. There is a minimum of "red tape" for the physician. Administration is simplified, and no special organization is necessary for the operation of the program.

Handy Booklet on Vitamins Issued

The State Department of Health has recently published a booklet, entitled "Practical Information on Vitamins", for use by physicians, dentists, public health officials, nurses, dietitians, nutritionists and home economists. Other recent publications of the department are "Regulations for the Establishment and Maintenance of Camps With Minimum Requirements for Satisfactory Compliance", and "Suggested Public Ground Water Supply; Ordinance and Code Recommended by the U. S. Public Health Service, 1941 Edition". Copies of these publications may be obtained by addressing Dr. R. H. Markwith, State Director of Health, Columbus.

Ohio Well Represented at Important Meetings in Chicago, Feb. 14-16

Approximately 100 representatives of state and county medical societies and voluntary medical service plans sponsored by the medical profession, held an informal conference at Chicago on February 14. John Laux of Michigan Medical Service, Inc., was elected chairman of the meeting. Participants in the round-table discussions included officials of Michigan Medical Service, Inc.; California Physicians Service and Western New York Medical Plan, Inc., who spoke on the basis of actual experience with plans now in operation.

Topics included: Scope of coverage; financial experience; organizational developments; interrelations with hospital plans and trends in the extension of the Federal Government's Social Security program. Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, asked cooperation of the various plans in furnishing his office with data which could be coordinated and made available to all who were interested.

Ohioans who attended the conference included: Dr. John E. Rauschkolb, Cleveland, chairman of the Committee on Medical Service Plans of the Ohio State Medical Association and a similar committee of the Cleveland Academy of Medicine; Dr. Robert C. Rothenberg, Cincinnati, member of the Committee on Medical Service Plans of the State Association and chairman of a committee which is studying service plans for the Cincinnati Academy of Medicine; Dr. E. G. Galbraith and George W. Cooley, executive secretary, representing the Toledo Academy of Medicine; Dr. Lewis K. Reed, Youngstown, chairman, Committee on Service Plans, Mahoning County Medical Society; Charles S. Nelson, executive secretary, and George H. Saville, assistant executive secretary, Ohio State Medical Association.

Dr. Rothenberg, Mr. Nelson and Mr. Saville also attended the National Conference on Medical Service held at Chicago, February 15, and the opening session of the Congress on Medical Education on February 16. Subjects discussed at that meeting included: procurement and assignment of physicians for military service; civilian defense; the role of the state medical society and state and city health departments in national defense; rejected selectees and their rehabilitation for active military service; role of the medical, dental and nursing schools and hospitals in anticipating the acceleration of training.

Open New Offices

Physicians who have recently opened new offices in Ohio include: Dr. A. E. Ewing, Girard; Dr. Louis Arkinson, Sebring; Dr. Edgar M. Wilson, Ashley; Dr. A. Hoodin, Niles; Dr. Michael E. Cristo, Youngstown; Dr. A. A. Baldwin, Glouster.

Do You Know - - -

Because of the war, the thirty-second annual Clinical Congress of the American College of Surgeons will be held in Chicago, October 19-23, instead of Los Angeles as originally planned. Headquarters will be at the Stevens Hotel.

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Dr. Charles T. Dolezal, Cleveland, assistant clinical professor of medicine Western Reserve University School of Medicine and assistant superintendent of the medical division at the Cleveland City Hospital, has been appointed city welfare director. It is the first time in the history of Cleveland that a physician has been named to that post.

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Judges for the state-wide school newspaper health article competition sponsored by the Ohio Public Health Association were: Dr. Jonathan Forman, editor of *The Ohio State Medical Journal;* Richard A. Aszling, director, Bureau of Public Education, Ohio State Medical Association, and Arthur Robinson, reporter for *The Columbus Citizen.*

* * *

Total enrollment in 67 group hospitalization plans in the United States on January 1 was 8,465,000. Included were the following in Ohio: Akron, 70,708; Canton, 28,228; Cincinnati, 207,113; Cleveland, 576,586; Columbus, 33,908; Portsmouth, 7,070; Toledo, 121,589, and Youngstown, 93,474.

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The families of the late Drs. Edwin M. Huston and Clement D. Smith, Dayton, have presented pictures of the physicians to the Montgomery County Medical Society. Each had served as president of the society, and Dr. Huston was President of the Ohio State Medical Association in 1936.

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Dr. William D. Cutter, aged 63, Secretary of the Council on Medical Education and Hospitals of the American Medical Association since 1931, died on January 24.

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The Ninth Annual Sale of Easter seals for crippled children, sponsored by the National Society for Crippled Children and its affiliated state and local organizations, will be conducted this year from March 10 to April 5.

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Nine physicians associated with public health services in Chile visited in Cleveland for three days during January for the purpose of studying the Cleveland Health Museum. Their visit to this country is under auspices of the Pan-American Sanitary Bureau, Washington, D.C.

The American College of Surgeons has announced a total of 38,818 five-year cancer cures as of 1941, an increase of 2,731 cured cases over the year 1940. Only 8,840 cured cases were recorded in 1932, the first year of registry. Reporting of cured cases among the membership of the college is not compulsory. All physicians are encouraged to submit a record of cancer patients who have survived a period of five years and are clinically free from the disease.

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According to the National Society for the Prevention of Blindness, of the 200,000 blind persons in the United States, about 34,000 lost their sight as the result of syphilis and gonorrhea.

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Dr. Rollo E. Dyer, a native of Delaware County, Ohio, has been appointed assistant surgeon general of the U. S. Public Health Service, in charge of the Division of Scientific Research and Director of the National Institute of Health. Chief of the Division of Infectious Diseases of the Institute since 1937, Dr. Dyer succeeds Dr. Lewis R. Thompson, who has been appointed Chief Inspecting Officer of the U. S. Public Health Service.

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The 47th Hanna Lecture, sponsored by Western Reserve University School of Medicine, Cleveland, was delivered at the Institute of Pathology, February 18. Dr. Eduardo Braun-Menindez, lecturer in physiology, director of cardiovascular investigations, Faculty of Medical Sciences, University of Buenos Aires, spoke on "The Humoral Mechanism of Renal Hypertension".

* * *

Louis B. Blair, for the last two years superintendent of the Lawrence County Hospital, Ironton, has been appointed assistant director of Starling-Loving University Hospital, Columbus, a newly created post. He succeeds Mrs. Elizabeth D. Simmerman, director of business administration at the hospital for about 12 years, who resigned February 1.

* * *

Dr. Elizabeth Campbell, who has practiced medicine in Cincinnati since 1895, and recently celebrated her 80th birthday, has been given an honorary life membership in the American Social Hygiene Association, the third person in the nation ever to receive this honor. Dr. Campbell founded the Cincinnati Social Hygiene Society and is now chairman of the Cincinnati Committee on Maternal Health.

Rules Issued to Govern Laboratories Seeking Approval To Perform Tests Under Premarital Examination Law

PURSUANT to the authority granted to the State Department of Health by the Ohio Premarital Physical Examination Law, the department has issued the following rules to govern laboratories seeking approval for the performance of premarital serological tests:

1. Each approved laboratory shall be in charge of a person possessing the degree of doctor of medicine; licensed to practice medicine in the State of Ohio; and who has had postgraduate training in clinical pathology for a period of at least three years in an approved institution, or shall have practiced clinical pathology with adequate training and experience in the performance of serology for a period of five years. Such person shall sign all premarital examination statements and laboratory serological reports.

2. If technicians are employed to perform serological tests in such approved laboratory, at least one shall be registered as a medical technologist by the Board of Registry of the American Society of Clinical Pathologists, or shall have qualifications and experience equivalent to qualifications and experience necessary for such registration.

3. If the person in charge of an approved laboratory is to be changed, the qualifications of the new director shall be submitted to and approved by the director of health. Probate judges are advised not to accept laboratory statements signed by any person other than the one designated for the approved laboratory in the official list of approved laboratories.

4. The person in charge of an approved laboratory shall submit to the director of health, for his record, the name and the qualifications of each newly employed technologist for premarital blood testing.

5. The premarital examination form prescribed and furnished by the Ohio Department of Health shall be used by approved laboratories and by physicians in making the statements required by law to be filed in the probate court by applicants for marriage license.

6. The serological report form prescribed and furnished by the Ohio Department of Health shall be used by all approved laboratories in reporting to the Ohio Department of Health the results of serological tests of blood specimens from applicants for marriage license.

7. When completing the laboratory statement in the premarital examination form, the person in charge of an approved laboratory shall give, in detail, the full name and address of the applicant for marriage license and of the physician who submitted the blood specimen for serological test.

8. Serological blood tests for syphilis, recognized by the Ohio Department of Health, are those known as Eagle, Hinton, Kahn, Kline and Kolmer. One or more of the tests named shall be used in the examination of a blood specimen of an applicant for marriage license.

9. When a blood specimen gives a positive or doubtful serology, it is recommended that the person in charge of the laboratory request the examining physician to submit another blood specimen.

10. Each approved laboratory shall provide for its use suitable outfits for receiving blood specimens from physicians. When such outfits are to be sent by mail they shall meet the requirements of the Post Office Department. Physicians who use an Ohio Department of Health mailing container for sending a blood specimen to an approved laboratory should be notified by the person in charge of the laboratory that such use is prohibited. When mailing containers furnished by the Ohio Department of Health are received by an approved laboratory they must be returned to the Ohio Department of Health as soon as there is an accumulation sufficient for an express package, which may be sent to the Laboratory of the Ohio Department of Health, Columbus, Ohio, C.O.D.

11. Daily returns shall be made to the Ohio Department of Health of a copy of all reports to physicians giving the results of premarital serological tests of blood specimens of applicants for marriage license. Before mailing these reports, the person in charge of the laboratory shall see that all items are properly entered and the report signed.

12. Approved laboratories shall perform serological tests for syphilis on an average of at least one hundred (100) persons each month for a period of 12 consecutive months. Not less than an average of twenty-five (25) serological tests made each month shall be of blood specimens from applicants for marriage license. The number of serological tests performed for applicants for marriage license will be determined by the number of serological reports received by the Ohio Department of Health from the approved laboratory.

13. When a laboratory is evaluated, it shall attain a sensitivity rating not more than ten (10) per cent below that of the control laboratory and a specificity rating not less than ninety-nine (99) per cent.

14. Approval of laboratories for the performance of premarital blood tests shall be effective for the calendar year in which issued, unless re-

voked for cause. Application for renewal of approval shall be made for each calendar year.

15. The approved laboratory shall comply with the intent, purposes and provisions of the Ohio premarital law. (S.B. 141, 94th General Assembly.)

16. The approval of a laboratory for the performance of premarital blood tests may be revoked for failure to comply with the above rules.

On February 16, 1942, Dr. R. H. Markwith, State Director of Health, transmitted to all probate judges in the state a list of laboratories officially approved as of February 16 for the performance of premarital blood tests during 1942, in compliance with Section 11188 of the General Code.

A list of these laboratories, with the name of the doctor of medicine in charge appearing in parentheses, follows: **Akron**—Children's Hospital, (Margaret R. Baker, M.D.); Peoples Hospital, (Sam H. Black, M.D.); City Hospital, (Lloyd Catron, M.D.). **Bowling Green**—Bowling Green Clinical Laboratory, (F. V. Boyle, M.D.). **Bryan**—Cameron Hospital Laboratory, (Don F. Cameron, M.D.). **Canton**—Mercy Hospital, (Raymond S. Rosedale, M.D.). **Cincinnati**—Maynard O. Brown Diagnostic Laboratory, (Maynard O. Brown, M.D.); Good Samaritan Hospital, (William M. German, M.D.); Langdon-Meyer Laboratory, (Samuel Goldblatt, M.D.); Douglas Goldman Laboratory, (Douglas Goldman, M.D.); Rosebrook Clinical Laboratory, (Karl V. Kitzmiller, M.D.); Dr. Aurelia P. McIntyre Laboratory, (Aurelia P. McIntyre, M.D.); Christ Hospital, (Irving H. Schroth, M.D.); Jewish Hospital, (Philip Wasserman, M.D.). **Cleveland**—St. Luke's Hospital, (Rafael Dominguez, M.D.); Drs. Cole and Driver Laboratory, (J. R. Driver, M.D.); Huron Road Hospital, (Edward Goodsitt, M.D.); Cleveland Clinic, (Russell L. Haden, M.D.); St. Vincent Charity Hospital, (William P. Jennings, M.D.); Institute of Pathology, Western Reserve University, (H. T. Karsner, M.D.); The Polyclinic Hospital Laboratory, (Henry A. Lichtig, M.D.); Private Laboratory of Dr. John E. Rauschkolb, (John E. Rauschkolb, M.D.); Clinical Pathological Laboratories, (Harry Sneiderman, M.D.); St. John's Hospital, (Harry Sneiderman, M.D.); St. Alexis Hospital, (John L. Work, M.D.); Mount Sinai Hospital, (Anna M. Young, M.D.) **Columbus**—James A. Beer's Laboratory, (James A. Beer, M.D.); Dr. Brown's Clinical Laboratory, (Anson Lee Brown, M.D.); Clinical and Pathological Laboratory, (Howard M. Brundage, M.D.); Horace B. Davidson, M.D. Laboratory, (Horace B. Davidson, M.D.); White Cross Hospital, (Roswell S. Fidler, M.D.); St. Francis Hospital, (Ralph M. Hartwell, M.D.); Elizabeth M. Myers Laboratory, (Ralph W. Hoffman, M.D.); E. O. Prewitt Laboratory, (Ralph W. Hoffman, M.D.); Starling-Loving University Hospital, (Harry L. Reinhart, M.D.). **Dayton**—Clinical Pathological Laboratory, (Charles A. Dille, M.D.); Miami Valley Hospital, (Melvin Oosting, M.D.). **Defiance**—Defiance Hospital, (B. W. Rhamy, M.D.). **Elyria**—Elyria Memorial Hospital, (Bernard Chomet, M.D.). **Fremont**—Memorial Hospital, (J. L. Curtin, M.D.). **Gallipolis**—Gallipolis Clinic Laboratory, (Leo C. Bean, M.D.); Holzer Hospital, (C. E. Richards, M.D.). **Lancaster**—Lancaster Municipal Hospital, (H. M. Amstutz, M.D.). **Lima**—John Lo Cricchio Clinical and Pathological Laboratory, (John Lo Cricchio, M.D.). **Mansfield**—Mansfield General Hospital, (Burr M. Hathaway, M.D.). **Napoleon**—Napoleon Clinical Laboratory, (Thomas L. Ramsey, M.D.). **Toledo**—Women's and Children's Hospital, (S. S. Hindman, M.D.); Private Clinical Laboratory, (Thomas L. Ramsey, M.D.); Mercy Hospital, (James B. Rucker, M.D.); Robinwood Hospital, (A. H. Schade, M.D.); Toledo Hospital, (Bernhard Steinberg, M.D.); Flower Hospital (Theodore Zbinden, M.D.). **Wauseon**—De Ette Harrison Detwiler Memorial Hospital, (Bernhard Steinberg, M.D.). **Youngstown**—St. Elizabeth's Hospital, (William Dean Collier, M.D.); Youngstown Hospital, (G. B. Kramer, M.D.).

Opinions of Attorney General

Among opinions recently issued by Attorney General Thomas J. Herbert are several relating to medical or public health questions. The syllabus of each follows:

No. 4558—Where medical services or the services of a hospital, in cases other than contagious, are rendered by a municipality, or other political subdivisions enumerated in Section 3484-2, General Code, to an indigent within a county other than that of legal settlement, the county of legal settlement, not the municipality or township therein, is liable for the costs of such services provided there has been a compliance with the statutory requirements as to notice.

No. 4635—A person may be employed by a general health district and a city health district at the same time to make investigations of the sanitary milk regulations of each district providing, of course, it is physically possible for the person to perform the duties of both positions.

No. 4603—The power delegated to the Department of Health, under the provisions of Section 1261-2, General Code, does not authorize the Public Health Council to adopt rules and regulations for the construction, installation and inspection of plumbing and drainage in private dwellings in municipalities or other political subdivisions wherein ordinances or resolutions have not been adopted or enforced.

Toledo—Dr. John F. Wright, chief of the medical staff at St. Anthony's orphanage, was recently honored at a dinner in recognition of his 25 years of service to that institution.

Helpful Hints for Physicians About Handling Accounts Receivable As Related to Collection of Income Tax

FEDERAL income tax on accounts receivable on the books of deceased physicians is of timely interest, not only because of the current tax collection period, but also because steps are being taken to correct an inequitable method of levy in this particular case.

Under present law, the estate of a taxpayer who has died is required to pay income tax, for the year in which the death occurred, on the entire amount of outstanding accounts receivable, if the taxpayer had been on a cash receipts and disbursement basis.

Thus, if a deceased physician's books show $10,000 in outstanding accounts receivable, and if he had been on a cash receipts and disbursements basis for taxing purposes, his estate must pay federal income tax on that amount for the year of his death, whether or not the accounts are collectible.

AMENDMENT IN 1934

This has been the situation since 1934, when the Congress passed an amendment to the income tax act which now appears as part of Section 42 of the Internal Revenue Code. This action was taken to close a gap in federal revenue sources, for prior to that time no tax was levied on such accounts receivable. However, because this amendment requires payment of taxes on estimated fair value of outstanding accounts receivable, whether they can be converted to cash or not, organizations of professional men are calling congressional attention to the inequity of this method of tax collection.

The Bureau of Legal Medicine and Legislation of the American Medical Association has filed a petition seeking remedial action. It points out that the result of Section 42 is to build up artificially the income tax for the year of death by inclusion of uncollected accounts on which no income whatsoever was realized prior to the death of the taxpayer and that ordinarily this works an exaggerated hardship by placing the estate in a higher surtax grouping, thus calling for a much higher income tax for the year of death in preceding years.

SEEK CHANGE IN LAW

The Bureau suggests that this obviously unjust situation may be remedied by a further amendment to Section 42 making outstanding accounts on the books of such a deceased taxpayer taxable as the money is collected rather than as of the date of the death.

The Council of the Ohio State Medical Association has interested itself in the problem for some time and has taken action to support the petition of the Bureau of Legal Medicine and Legislation.

Pending remedial action by the Congress, there are certain things a physician may do, the Bureau explains, to avoid the hardship which may be imposed by this method of income tax collection.

SOME HELPFUL ADVICE

In the first place, **a physician should not enter on his books accounts due from patients when such accounts are of doubtful value or known to be uncollectible. Furthermore, a physician should write off known bad accounts at least once a year.** If bad accounts are carried on the books for several years, the physician's estate will be forced to prove their uncollectibility, and, of course, evidence on this point may be very difficult to obtain.

FOR an explanation of the Federal Income Tax law and suggestions as to procedure in the filing of returns on or before March 16, and information concerning other Federal and State tax laws, see the February issue of The Ohio State Medical Journal, pages 167-173.

Some physicians make it a practice to enter on their books the accounts of persons for whom they intend to render free service. Although there may be seemingly good reasons for making no distinction between charity cases and others in bookkeeping, **physicians are advised, on account of Section 42, to avoid this practice** because it may complicate the duties of the administrator or executor of an estate. Not only will it be extremely difficult, under these circumstances, to arrive at a fair evaluation of the accounts receivable, but the executor or administrator may be unable to prove to the internal revenue collector that the physician had not intended to make a charge for his services when he made the book entry against the patient's account.

SHOULD KEEP DATA

It is also suggested that a physician keep somewhere in his files, readily available in event of his death, all possible pertinent information regarding the collectibility of various accounts.

This information may be obtained either from the patient or from other acceptable sources and should be, of course, confidential.

Furthermore, it is considered **good foresight on the part of a physician whose outstanding accounts receivable represent a considerable volume to anticipate the income tax demands on his estate by setting aside sufficient cash to cover them.** An adequate amount for this purpose can be determined by consulting an attorney or accountant, and thus the estate may be spared the necessity of liquidation at a sacrifice in order to meet tax requirements.

THIS NOT ADVISABLE

A completely different means of avoiding the potential hardship imposed by the present Section 42 would be, of course, to change from a cash receipts and disbursements basis to an accrual basis. According to the Bureau, however, the advisability of such a change is questionable. In the first place, it cannot be made without the consent of the Commissioner of Internal Revenue. In the second place, it entails a much more detailed method of bookkeeping and a far more complicated procedure for reporting income.

Moreover, such a change might necessitate the closing of all accounts. Otherwise, the taxpayer might be faced with demands to pay taxes on all accounts outstanding for the year when the change is made, and thus the same problems which now arise out of Section 42 would be raised.

Committees Are Selected To Handle Local Arrangements For Annual Meeting, April 28-30, in Columbus

Dr. John W. Wilce has been named general chairman of the Local Committee on Arrangements for the Ninety-Sixth Annual Meeting of the Ohio State Medical Association, April 28-30, at the Neil House, Columbus. Assisting him will be Dr. J. H. J. Upham, honorary chairman, and Dr. Harry E. LeFever, president of the Columbus Academy of Medicine, honorary vice-chairman, and the following committee personnel:

Reception—Dr. Leslie L. Bigelow, chairman; Dr. Russel G. Means and Dr. George T. Harding, vice-chairmen; Drs. John B. Alcorn, Hugh A. Baldwin, Robert L. Barnes, J. F. Bateman, Earl H. Baxter, C. H. Benson, Col. H. E. Boucher, Halbert B. Blakey, Harley O. Bratton, E. H. Chapin, Ivor G. Clark, Andre Crotti, George M. Curtis, Commander Drew L. Davies, C. A. Doan, V. A. Dodd, Nelson C. Dysart, J. M. Dunn, Jonathan Forman, Fred Fletcher, Albert D. Frost, E. J. Gordon, I. B. Harris, L. M. Harris, S. A. Hatfield, Arthur G. Helmick, E. G. Horton, Carl D. Hoy, Carl A. Hyer, W. D. Inglis, Col. E. C. Jones, L. N. Jentgen, A. B. Landrum, Bruce E. Lindsey, Leslie M. Lisle, H. S. Manuel, R. H. Markwith, J. W. Means, W. F. Millhon, John H. Mitchell, William B. Morrison, George I. Nelson, C. T. Okey, Charles W. Pavey, Major C. S. Perry, H. M. Platter, Joseph Price, R. A. Ramsey, Andrew S. Rogers, Henry H. Schwarzell, Charles J. Shepard, C. C. Sherburne, Ruth H. St. John, Ralph B. Taylor, William N. Taylor, Wells H. Teachnor, Andrew J. Timberman, John M. Thomas, James H. Warren, W. S. VanFossen, B. K. Wiseman, Luke V. Zartman.

Halls and Meeting Places—Dr. Dan G. Sanor, chairman; Dr. Thomas F. Ross, vice-chairman; Drs. A. A. Hall, James J. Hughes, L. W. Rohr, Tom F. Lewis, Harrison S. Evans, M. H. Turton, Frank J. Lacksen, Warren W. Hicks.

Annual Banquet—Dr. E. J. Stedem, chairman; Dr. A. B. Johnson, vice-chairman; Drs. H. M. Clodfelter, Link M. Murphy, Huston F. Fulton, Ben C. Houghton, Gilman D. Kirk, Philip T. Knies, R. W. Kissane, Robert C. Kirk, Capt. J. E. Brown, Jr., W. P. Smith, P. B. Wiltberger.

Smoker—Dr. George Heer, chairman; Dr. J. W. Means, vice-chairman; Drs. D. F. Bowers, Frank W. Harrah, L. H. VanBuskirk, Joseph M. Griffith, Louis J. Roth, James M. Foley, Walter H. Hamilton, Edward Reinert, Louis Mark, K. H. Armen, Roy E. Krigbaum.

Projection Apparatus—Dr. Harry L. Reinhart, chairman; Drs. H. B. Davidson, H. V. Weirauk, Myron D. Miller, B. F. Barney, Hugh J. Means, Frank A. Riebel.

Hobby Exhibit—Dr. C. W. McGavran, chairman; Dr. Paul Palmer, vice-chairman; Drs. H. M. Gilmore, J. E. Kerschner, Earl H. Ryan, Capt. Theodore C. Allenbach, Shirley Armstrong.

Auxiliary—Mrs. Ralph W. Hoffman.

Ohioans Participate in Surgical Program

A number of Ohioans participated in the program of the Second Annual Assembly of the Central Surgical Association at Chicago, February 27-28. They were: Dr. Max M. Zinninger, Cincinnati, "Obstructions of the Second and Third Portions of the Duodenum"; Dr. Bernard B. Larsen, Cleveland, "A Method for the Insertion of the Smith-Peterson Nail Without an Initial Skin Incision"; Dr. Vinton E. Siler, Cincinnati, "Acute Costal Chondritis Associated with Sternal Osteomyelitis"; Dr. James D. King and Dr. Frank E. Hamilton, Columbus, "Concussion of the Lung". Officers of the association include: Dr. George M. Curtis, Columbus, secretary; Dr. Zinninger, treasurer; and Dr. Carl J. Lenhart, Cleveland, councillor.

Cleveland—The medical executive board chosen by the staff of St. John's Hospital for a two-year period includes: Dr. C. L. McDonald, chief; Dr. C. A. O'Connell, vice-chief; Dr. R. J. Schraff, secretary; Dr. C. L. Steyer, director of medicine; Dr. J. E. Hannibal, director of surgery; and Dr. J. T. Collins and Dr. J. V. Heimann.

In Memoriam

Howard Ward Arndt, M.D., Lore City; Starling Medical College, Columbus, 1897; aged 70; member of the Ohio State Medical Association and the American Medical Association; died February 6. Widely known throughout Guernsey County where he practiced for 45 years, Dr. Arndt was a former president of the Guernsey County Medical Society. He had served two terms as county commissioner and was physician for the County Home for 42 years. Dr. Arndt was a Mason. His widow survives.

Paul Elliott Beach, M.D., Cleveland; University of Wooster, Medical Department, Cleveland, 1912; aged 57; died January 17. Dr. Beach practiced in Cleveland for nearly 20 years. He was a member of the staff of St. Luke's Hospital. Surviving are his widow, a son, a brother—Dr. John L. Beach, Seville, and a sister.

Thomas J. Brown, M.D., Glenford; University of Tennessee Medical College, 1890; aged 78; died January 11. Dr. Brown retired three years ago after having practiced in Glenford for nearly 40 years and in Mt. Sterling for seven years. His widow, three sons and two brothers survive.

Leopold Deutsch, M.D., Cleveland; Starling Medical College, Columbus 1896; aged 69; died January 19. Dr. Deutsch retired ten years ago after having practiced in Cleveland for over 30 years.

Frank Edgar Fee, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1895; aged 69; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died January 29. Professor emeritus of clinical surgery at the University of Cincinnati College of Medicine, Dr. Fee practiced in Cincinnati for 45 years. At one time he was chief of staff at Christ Hospital. His widow, a son and a daughter survive.

Elias Cecil Fischbein, M.D., Dayton; Cornell University Medical College, New York, 1905; aged 59; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 21. Dr. Fischbein located in Dayton in 1919 shortly after completing his service with Army Medical Corps at Camp Dix and Fort Riley, Kansas, where he was in charge of the neuro-psychiatric hospital. He was consultant in that field to Miami Valley, Good Samaritan and the Dayton State Hospital, and was at one time chief of staff at the Miami Valley Hospital. His widow, a daughter, a son, a brother and two sisters survive.

Charles H. King, M.D., Bucyrus; Ohio Medical University, Columbus, 1906; aged 64; member of the Ohio State Medical Association and the American Medical Association; died January 29. Dr. King practiced in Bucyrus for more than 30 years. He was formerly located in Steubenville. Dr. King was a former president and secretary of the Crawford County Medical Society. He was a member of the Presbyterian Church. His widow survives.

Carey Seymour McCafferty, M.D., Columbus; Columbus Medical College, 1890; aged 74; member of the Ohio State Medical Association and the American Medical Association; died February 7. A practicing physician for over 50 years, Dr. McCafferty had been at the same location in Columbus for 29 years. He was a member of the Elks' Lodge. Surviving are his widow and a son—Dr. Lawrence McCafferty, New York City.

James Charles Pecl, M.D., Cleveland; Ohio State University College of Medicine, 1922; aged 48; member of the Ohio State Medical Association and the American Medical Association; died January 9. Dr. Pecl practiced in the Newburgh district of Cleveland for 18 years. He was a member of the Masonic Order. His widow and a son survive.

William Givin Rhoten, M.D., Massillon; Medical College of Ohio, Cincinnati, 1900; aged 68; former member of the Ohio State Medical Association and the American Medical Association; died January 13. Dr. Rhoten retired because of ill health in January, 1936, after having been health commissioner of Wayne County for 10 years. He had also been located in Highland and Hocking counties. While in Wooster, Dr. Rhoten was an elder of the Church of Christ. Surviving are his widow, four sons and a brother.

Ellis R. Shilling, M.D., Columbus; Ohio State University College of Medicine, 1909; aged 57; member of the Ohio State Medical Association; Fellow of the American Medical Association; member of the American Society of Clinical Pathologists; died January 21. Dr. Shilling practiced in Columbus for 30 years. He was active in Masonic work, and was a former president of the Mercator Club. Surviving are his widow; two sons, one of whom, Dr. Ralph Shilling, is a lieutenant in the Medical Corps of the U.S. Army at Fort Jackson, S. C.; and two sisters.

William Blount Turner, M.D., Knoxville, Ky.; University of Cincinnati College of Medicine, 1924; aged 43; member of the Kentucky State Medical Association; former member of the Ohio

State Medical Association; Fellow of the American Medical Association; died January 10. Dr. Turner practiced in Wooster from 1925 to 1937. His widow and two sisters survive.

Cornelius Hood Williams, M.D., Middletown; Kentucky School of Medicine, Louisville, 1889; aged 83; died January 30. Dr. Williams practiced last at Ashland, Ky., but some years ago practiced in Ohio at Somerville and Hamersville. He was a member of the Methodist Church. A daughter survives.

Lewis DeMoss Wolfe, M.D., Columbus; Ohio Medical University, Columbus, 1902; aged 67; former member of the Ohio State Medical Association and the American Medical Association; died February 4. Dr. Wolfe practiced in Columbus for 34 years, retiring six years ago because of ill health. He was a member of the Methodist Church, Masonic Order and Woodmen of the World. Surviving are his widow, two sons, one of whom is Dr. Clement V. Wolfe, Columbus; and a brother, Dr. Robert Wolfe, practicing in Kentucky.

Supreme Court Upholds Action of State Medical Board In Rejecting Application

In a decision handed down February 11, (No. 28806—The State, ex rel. Analis v. Hunter, President of the State Medical Board, et al.) the Supreme Court of Ohio upheld the State Medical Board in refusing permission to take the examination to practice medicine and surgery in Ohio, to an American citizen who had attended an unapproved medical school in the United States for three years and after one year's attendance at the University of Lausanne, Switzerland, received a diploma which did not entitle him to practice medicine and surgery in that country. The Court sustained a demurrer, filed by Attorney General Thomas J. Herbert in behalf of the State Medical Board, to a petition for a writ of mandamus, the issuance of which would have compelled the Board to permit the relator to take the examination.

The decision of the Court, which was unanimous, follows:

"The question presented for determination is whether the presentation of a diploma from the University of Lausanne, Switzerland, by the relator requires the State Medical Board to permit him to take the regular examination conducted by the board for admission to the practice of medicine and surgery in Ohio.

"The statutes governing the matter are as follows:

"Section 1270, General Code, reads in part:

" '* * * The applicant must also produce a diploma from a medical institution in the United States in good standing as defined by the board at the time the diploma was issued, or a diploma or license approved by the board which conferred the full right to practice all branches of medicine or surgery in a foreign country.'

"Section 1272, General Code, reads:

" 'The State Medical Board shall admit to the examination an applicant holding the credentials set forth in Section 1270.'

"For the purpose of the demurrer the operative allegations in the petition are admitted to be true.

"The relator had a diploma from an accredited medical school in a foreign country but was not licensed to practice in that country. In substance the contention of the relator is that a citizen of Switzerland who comes to this country and seeks to take the medical examination would be permitted to do so under proper construction of our statutes whereas a citizen of the United States who graduated from an accredited medical school in Switzerland but who cannot be licensed to practice in that country is not permitted to take the examination. To sustain his contention he relies on the case of *Leo* v. *Board of Medical Examiners of California*, 36 Cal. App. (2d), 490, 97 P. (2d), 1046, in which it was held that the California statute would be construed as applying to alien applicants only.

"It is enough to say that the California statute is different and the decision has no application here.

"As we construe the Ohio statute it makes no difference whether the applicant has a diploma from a foreign institution or a license to practice in that country where the school is located. In either event two things are necessary, (a) the diploma or license, as the case may be, must be approved by the board, and (b) such diploma or license must confer the full right to practice all branches of medicine and surgery in a foreign country. It is plain therefore that our statute makes no distinction between an alien and a citizen of this state and it is a valid and constitutional enactment.

"Either a diploma or license may be presented. Both are not necessary. Whichever is presented must be approved by the board before an applicant takes the examination. Is the averment that the University of Lausanne is in good standing with and recognized, accredited and approved by the board the equivalent of an averment that the diploma has been approved? In our judgment it is not. The right to approve exists at the time the diploma is presented, notwithstanding previous action as to the good standing of the institution which issued the diploma. The board had a right in the exercise of its discretion to withhold approval of the diploma. The allegations of the petition do not show any abuse of discretion.

"If the statute does an injustice the appeal for relief must be made to the Legislature.

Demurrer sustained."

Cleveland—Dr. Otto Loewi, professor of pharmacology at New York University and formerly professor of pharmacology at the Universities of Vienna and Gratz, gave the Julius H. Selman Memorial Lectures at Mt. Sinai Hospital, February 9 and 10. Nobel Prize recipient in 1936, Dr. Loewi spoke on "The Chemical Transmission of Nervous Impulse", and "Regulation and Adaptation in the Organism".

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

At a meeting of the Butler County Medical Society, January 22, at the Middletown Hospital a "Symposium on Gallbladder Diseases", was presented by five physicians, under the direction of Dr. Malcolm Cook, Hamilton. Dr. B. M. Warne, Cincinnati, discussed the X-ray aspects; Drs. Dan Skinner and Corliss Keller, Hamilton, the medical aspects; and Dr. Azel Ames, Hamilton, and Dr. Cook, the surgical aspects.—Mabel E. Gardner, M.D., secretary.

A nurses scholarship fund was established by the Woman's Auxiliary at its meeting, January 20, at the home of Mrs. L. H. Skimming, Middletown. Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, spoke on "Nutrition for Defense", at a meeting of the Auxiliary, February 17, at the Hamilton Y.W.C.A. The meeting was open to the public.—News clipping.

CLINTON

Dr. Bernard A. Schwartz, Cincinnati, spoke on "The Heart in Middle Age", at a meeting of the Clinton County Medical Society, February 3, at the General Denver Hotel, Wilmington.—News clipping.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during February:

February 3. Christ Hospital Meeting. "Suppurative Cavernous Sinus Thrombosis with Recovery Following Chemo and Heparin Therapy", Dr. William H. Craddock; "Weil's Disease", Dr. Joseph N. Ganim; "Extra-Peritoneal Cesarean Section", Dr. John G. Fleming; "Infective Neuronitis", Dr. David A. Tucker, Jr.; "Acute Toxic Hepatitis", Dr. Carroll J. Fairo; "Brain Tumor", Dr. Frank H. Mayfield; "Disseminated Lupus Erythematosus", Dr. Ashton L. Welsh; "Kenny Treatment of Poliomyelitis", Dr. Theodore H. Vinke.

February 17. "The Comparative Sensitivity and Reliability of the Newer Liver Function Tests and Their Relationship to Medical and Surgical Problems", Dr. John Mateer, Henry Ford Hospital, Detroit; "Gastric Surgery", Dr. Lawrence R. Fallis, Henry Ford Hospital, Detroit.—Bulletin.

Over 500 members attended a special meeting of the Academy, January 27, devoted to medical preparedness and civilian defense. Speakers included: Dr. Parke G. Smith, director, division of health, nutrition and medical care, Cincinnati Defense Council; Dr. Carl A. Wilzbach, city health commissioner and coordinator of the section on health and nutrition; Dr. Ralph G. Carothers, coordinator of medical care; Dr. L. Howard Schriver, coordinator of surgery; and Charles S. Nelson, Executive Secretary, Ohio State Medical Association, who discussed procedures under the Procurement and Assignment Service for obtaining physicians for military service.

HIGHLAND

"Low Back Pain", was the subject discussed by Dr. Frank H. Mayfield, Cincinnati, at a meeting of the Highland County Medical Society, February 4, at Hillsboro.—W. B. Roads, M.D., secretary.

Prosecuting Attorney Eugene Hahne, Greenfield, spoke on "Civilian Defense", at a meeting of the Woman's Auxiliary, February 4, at Hillsboro.—Mrs. W. B. Roads, secretary.

WARREN

Officers of the Warren County Medical Society for 1942 are: Dr. Roy C. A. Bock, Kings Mills, president; Dr. P. W. Hoffman, Franklin, vice-president; Dr. Orville Layman, Franklin, secretary; Dr. A. E. Stout, Waynesville, treasurer; Dr. Edward C. Morey, Franklin, chairman, legislative committee; Dr. Robert Blair, Lebanon, chairman, committee on medical preparedness; Dr. N. A. Hamilton, Franklin, delegate; Dr. James J. Arnold, Lebanon, alternate.—James H. Arnold, M.D., retiring president.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

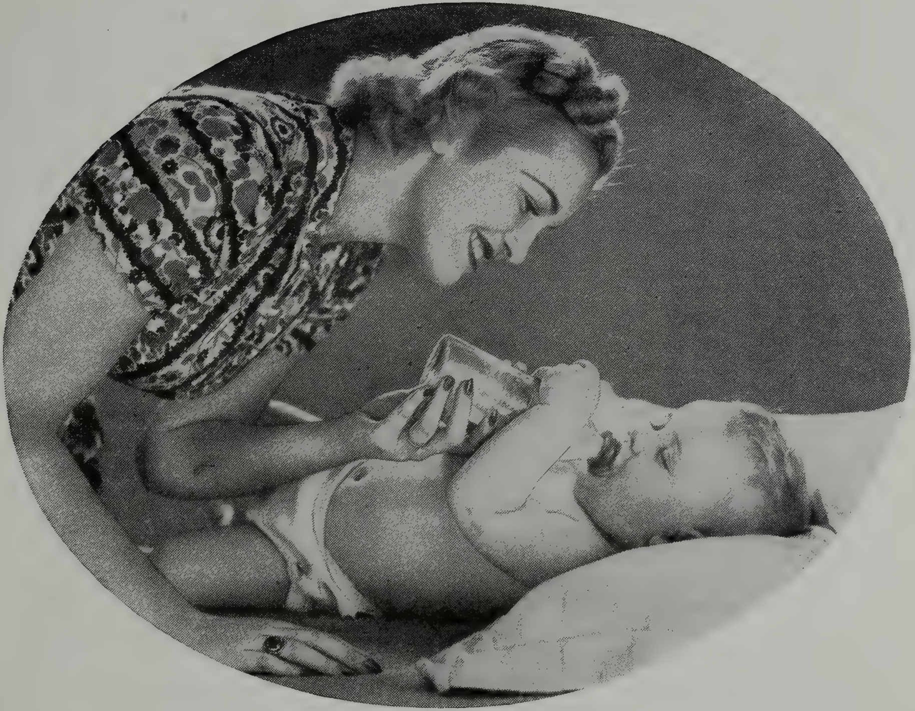
Dr. Louis A. Lurie, assistant professor of psychiatry, University of Cincinnati College of Medicine, was guest speaker at a meeting of the Clark County Medical Society, January 26, at the Springfield Country Club.—News clipping.

MIAMI

The three youngest members of the Miami County Medical Society were discussion leaders at a meeting of the society, February 6, at the Stouder Hospital, Troy, which was devoted to "Symposium on 1941 Medical Progress". Dr. D. J. Parsons, Tipp City, spoke on "Progress in Medicine"; Dr. C. E. Stout, West Milton, "Progress in Surgery"; and Dr. Howard Farmer, Fletcher, "Military Medical and Surgical Progress".—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Frederick A. Coller, professor of surgery, University of Michigan Medical School, Ann



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Arbor, spoke on "Our Water Balance", at a meeting of the Montgomery County Medical Society, February 6, at Dayton.—Bulletin.

PREBLE

Dr. C. E. McKinley, Camden, is president and Dr. Von B. Barnhiser, Camden, is secretary of the Preble County Medical Society for 1942.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

HARDIN

Dr. Robert Conard, Wilmington, chairman, Committee on Medical Preparedness, Ohio State Medical Association, spoke on "Medical Defense in the Present Crisis", at a meeting of the Hardin County Medical Society, January 15, at Kenton. Guests included a number of physicians from neighboring counties.—News clipping.

LOGAN

Actual recommendations on recent surgical developments and their military adaption to front line combat zones, by Lt. Commander M. L. Pratt, M.C., U.S. Navy, were presented to the Logan County Medical Society by Dr. R. B. Pratt, at a meeting in Bellefontaine, February 6. He mentioned treatment of shock, sulfa-drugs and the use of human plasma. "Conquerors of Yellow Fever", a picture, was described in detail by Dr. F. B. Kaylor. The disease was discussed as part of a plan by the society to anticipate great epidemics. Dr. F. B. Webster brought a series of roentgenograms to illustrate a case in which a fractured femur was successfully reduced by traction after an internal fixation had to survive unusual stress. It was announced that every physician in the county not in active military service had enrolled for emergency service in Civilian Defense. Plans for the Woman's Auxiliary were referred to the policy committee. A very technical motion picture, loaned by Davis and Geck, was shown, covering "Surgical Anatomy of the Male Genito-Urinary Tract".—O. C. Amstutz, M.D., secretary.

MARION

Dr. Bernhard Steinberg, director, department of medical research, Toledo Hospital, discussed "Diagnosis and Treatment of Infections of Peritoneum", at a meeting of the Marion Academy of Medicine, February 3, at the Marion City Hospital.—News clipping.

SENECA

Fifteen members were present at a meeting of the Seneca County Medical Society, February 12, at the Shawhan Hotel, Tiffin. Dr. K. C. McCarthy, Toledo, gave a very good talk on "English Medicine and the War".—N. E. Williard, M.D., secretary.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

DEFIANCE

Dr. A. A. Brindley, Toledo, Councilor for the Fourth District, discussed various organization matters at a meeting of the Defiance County Medical Society, January 16, at Defiance. His talk was informative regarding the medical profession and the war; problems of the State Industrial Commission and other subjects of interest to the profession.

The question of laymen and nurses in industrial plants engaging in the practice of medicine was discussed by the society.—E. P. Mitchell, M.D., secretary.

HENRY

Mrs. William R. Leibschner, Deshler, spoke on "First Aid", at a meeting of the Woman's Auxiliary to the Henry County Medical Society, January 13, at the Wellington Hotel, Napoleon.—News clipping.

SANDUSKY

Officers of the Sandusky County Medical Society for 1942 are: Dr. J. W. Agnew, Gibsonburg, president; Dr. Chester G. Egger, Woodville, vice-president; Dr. Harold L. Keiser, Fremont, secretary-treasurer; Dr. T. R. Cunningham, Fremont, chairman, legislative committee and committee on medical preparedness; Dr. C. J. Boyce, Fremont, delegate; Dr. J. C. Wolfe, Fremont, alternate.—H. N. Kuhn, M.D., secretary.

LUCAS

Officers of the Academy of Medicine of Toledo for 1942 are: Dr. A. P. Hancuff, president; Dr. A. A. Brindley, president-elect; Dr. F. P. Osgood, secretary; Dr. W. W. Alderdyce, treasurer; Dr. Brindley, chairman, legislative committee; Dr. Dale Wilson, chairman, medical preparedness committee; Dr. R. C. Young, Dr. F. N. Nagel, Dr. L. D. Miller, Dr. W. W. Green, delegates; Dr. C. E. Hufford, Dr. H. M. Scott, Dr. F. P. Osgood, Dr. F. W. Clement, alternates.—George W. Cooley, executive secretary.

The Academy presented the following programs during February:

February 6—General Meeting. "Head Injuries", Dr. Harry S. Mock, associate professor of surgery, Northwestern University Medical School, Chicago.

February 20—Medical Section. "A Chalk Talk on Atherosclerosis", Dr. Martin Henry Fischer, professor of physiology, University of Cincinnati College of Medicine.

February 27—Surgical Section. "The Use of X-ray Pelvimetry in Obstetrics", Dr. James F. Miller, Toledo.—Bulletin.

Dr. K. C. McCarthy gave a vivid account of his experiences in England, at a meeting of the Woman's Auxiliary, January 30. Registrations

Q. When I serve a dish of canned peas or spinach or some other canned vegetable to a patient, how can I know how much ascorbic acid the patient is getting?

A. I couldn't assign a definite numerical value. All vegetables have an upper and lower limit of ascorbic acid content. This probably is also true for their other essential nutrients. The ascorbic acid content of a given sample is determined by a number of factors, like variety, state of maturity when picked, soil, weather, and what happens to the vegetable between the time it is harvested and served to the patient. It is very likely that canned vegetables are fully equal in ascorbic acid content to kitchen-prepared vegetables. I suggest you be guided by reliable publications on the ranges of vitamin contents in canned foods. (1)

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(1) 1936. Food Research 1, 3
1936. Ibid 1, 231
1938. Nutrition Abstracts and Reviews 8, 281
1939. The Canned Food Reference Manual, American Can Co., New York.
1940. J. Am. Diet. Assoc. 16, 891

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were taken for a class on "Nutrition", to be taught by Mrs. Fred Osgood, a graduate dietitian.—Bulletin.

PUTNAM

Dr. A. A. Brindley, Toledo, Councilor for the Fourth District of the Ohio State Medical Association, was guest speaker at a meeting of the Putnam County Medical Society, January 6, at Leipsic. Dr. Brindley reported the proceedings of the previous meeting of The Council and gave an interesting talk on "The Relationship of Medicine to the Present Emergency".

Dr. Donald M. English, Lima, gave a very enlightening illustrated discussion of "X-Ray in the Diagnosis of Conditions Causing Vomiting", at a meeting of the society, February 5, at Leipsic.—Nathan Aronoff, M.D., correspondent for *The Journal.*

WOOD

Dr. Fred M. Douglass, Toledo, spoke on "Gallbladder Disease with Common Duct Obstruction", at a meeting of the Wood County Medical Society, January 22, at Bowling Green. The paper was largely the product of original research by Dr. Douglass and outlined methods of treatment giving a more favorable prognosis for biliary disease. The importance of early recognition by the general practitioner was stressed, as well as the medical side of this condition. The paper was discussed by Drs. H. W. Mannhardt and F. V. Boyle, Bowling Green, and Dr. Victor Pilliod, Grand Rapids. The society tendered Dr. Douglass a rising vote of thanks.

A multiple-planned mirror for treating arthritis by using sun light was shown informally by Dr. D. R. Barr, Grand Rapids.

During the business session, Dr. Joseph C. Gallagher, Rossford, was voted an emeritus membership in recognition of his long membership and service in the society.—D. R. Barr, M.D., correspondent for *The Journal.*

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during February:

February 6—Clinical and Pathological Section. "Etiological Factors of Treatment of Chronic Otitis Media", Dr. W. G. Mussun; "Presentation of Dermatological Cases", Dr. C. L. Cummer and Dr. C. G. LaRocco; "A New Approach to the Prostate Gland Via Its Ductal Orifices", Dr. H. R. Trattner; "Radiological Biotomy or Body Section Roentgenography", Dr. J. R. Andrews; "Total Abdominal Hysterectomy", Dr. J. E. Hallisy.

February 11—Medical Practice Section. "Symposium on Drugs". "Drugs In Gastrointestinal Diseases", Dr. A. J. Beams; "Allergic Conditions", Dr. I. M. Hinnant; "Ear, Nose and Throat Conditions", Dr. I. F. Weidlein; "Pulmonary Infections", Dr. Harry V. Paryzek; "Acute and Chronic Cardiac Conditions", Dr. R. W. Scott; "Report of the National Committee on Immunization and Therapeutic Procedures in Acute Infectious Diseases", Dr. J. A. Toomey.

February 13—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Chemical Changes in the Rabbit Heart During Hypertrophy", G. H. Hitchings, Ph.D., and Dr. J. T. Wearn; "Some Electroencephalographic and Electrocardiographic Aspects of Experimentally Induced Convulsions", C. E. Henry, Ph.D.; F. W. Finger, Ph.D., and D. B. Lindsley, Ph.D.; "The Problem of the Portal of Entry of Poliomyelitis Virus in Man", Dr. D. Bodian.

February 18—Obstetrical and Gynecological Section. Presentation of Cases by the Hospital Obstetrical Society of Cleveland.

February 20—Regular Academy Meeting. "War Medicine in England", Captain C. F. Stephenson, M.C., U.S. Navy.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

The following are officers of the Columbiana County Medical Society for 1942: Dr. Lea A. Cobbs, Salem, president; Dr. A. M. Baldwin, East Palestine, vice-president; Dr. Guy E. Byers, Salem, secretary-treasurer; Dr. J. W. Schoolnic, East Liverpool, chairman, legislative committee; Dr. Charles A. Gerace, East Liverpool, chairman, committee on medical preparedness; Dr. John A. Fraser, East Liverpool, delegate; Dr. Paul H. Beaver, Leetonia, alternate.—Guy E. Byers, M.D., secretary.

MAHONING

Dr. J. M. Rogoff, professor of endocrinology, University of Pittsburgh School of Medicine, spoke on "The Adrenal Glands in Relation to Hypertension and Diabetes", at a meeting of the Mahoning County Medical Society, February 17, at Youngstown.—Bulletin.

PORTAGE

Following a brief business meeting of the Portage County Medical Society, February 5, at Robinson Memorial Hospital, Ravenna, members of the society were guests of Dr. J. A. Seligman and Dr. H. S. Wendorf at the Atlas Powder Company at Ravenna, where they inspected the medical facilities of the Ordnance plant.—Emily J. Widdecombe, M.D., secretary.

STARK

Dr. Edward Allen, Presbyterian Hospital, Chicago, spoke on "Endometriosis", at a meeting of the Stark County Medical Society, Feb-

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ruary 12, at the Parish House of St. Paul's Episcopal Church, Canton.—Harold J. Bowman, M.D., secretary.

Forty-five members of the Woman's Auxiliary met at the Canton Art Institute on January 12, for a program on "Mexico".—News clipping.

SUMMIT

Dr. John S. Lockwood of the Research Section, University of Pennsylvania School of Medicine, spoke on "Sulphonamides", at a meeting of the Summit County Medical Society, February 3, at the Mayflower Hotel, Akron.—Bulletin.

TRUMBULL

At the monthly luncheon meeting of the Woman's Auxiliary to the Trumbull County Medical Society, January 13, at the Hotel Warner, Warren, the group inaugurated a scholarship fund for the Warren City Hospital School of Nursing, and authorized a donation of $100 to the fund.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Mrs. L. D. Covert, Bellaire, became president of the Woman's Auxiliary of the Belmont County Medical Society, December 17, when Mrs. John O. Robben and Mrs. W. L. Davis entertained the organization at a Christmas tea at the home of the former in Martins Ferry. Other officers are: Mrs. H. E. Ring, Bellaire, president-elect; Mrs. Homer West, St. Clairsville, vice-president; Mrs. David Danenberg, Bridgeport, secretary-treasurer.—News clipping.

COSHOCTON

Officers of the Coshocton County Medical Society for 1942 are: Dr. Samuel B. Kistler, Coshocton, president; Dr. J. C. Briner, West Lafayette, vice-president; Dr. W. F. Lyons, Coshocton, secretary-treasurer; Dr. E. M. Wright, Coshocton, chairman, legislative committee; Dr. F. W. Craig, Coshocton, chairman, committee on medical preparedness; Dr. A. P. Magness, Coshocton, delegate; Dr. J. G. Smailes, Coshocton, alternate.—W. F. Lyons, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

A discussion of "The Role of the Medical Profession in the War", was led by Dr. J. L. Webb, at a meeting of the Athens County Medical Society, January 13, at Nelsonville.—News clipping.

GUERNSEY

Ladies' Night was observed by the Guernsey County Medical Society, January 8, when wives of members were guests at a dinner meeting at the Cambridge Country Club. Mrs. Charles M. Steele showed motion pictures which she had taken at home and on trips in the West. Dr. George F. Swan gave a report on an address made by Dr. Morris Fishbein, editor of *The Journal of The American Medical Association*, at Newark.—News clipping.

Clinical photographs in color were shown by Dr. Reo Swan at a luncheon meeting of the society, February 5, at the Berwick Hotel, Cambridge.—News clipping.

MUSKINGUM

Lieut. Col. Earl W. Brannon, director of the Zanesville Defense Council, was the principal speaker at a meeting of the Muskingum County Academy of Medicine, February 4, at the University Club, Zanesville.—News clipping.

WASHINGTON

Officers of the Woman's Auxiliary to the Washington County Medical Society for 1942 are: Mrs. T. R. Mattocks, president; Mrs. J. F. Weber, president-elect; Mrs. R. M. Meredith, vice-president, and Mrs. F. E. Eddy, secretary-treasurer, all of Marietta. The auxiliary has 28 members. —News clipping.

An animated picture on "The Adrenal Cortex Hormone", was shown by the Upjohn Company, at a meeting of the Washington County Medical Society, January 14, at Marietta. Dr. F. J. Potter, Parkersburg, W. Va., spoke on "Deep X-ray Therapy", at a meeting of the society, February 11.—Richard H. Sloan, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

LAWRENCE

The following Ironton physicians are officers of the Lawrence County Medical Society for 1942: Dr. Thos. E. Miller, president; Dr. W. Ray Swango, vice-president; Dr. Wm. A. French, secretary-treasurer; Dr. O. H. Henninger, chairman, legislative committee; Dr. H. S. Allen, chairman, medical preparedness committee; Dr. G. G. Hunter, delegate; Dr. T. E. Miller, alternate.—Wm. A. French, M.D., secretary.

SCIOTO

Dr. Russel G. Means, Columbus, spoke on "Complications of the Common Cold", at a meeting of the Hempstead Academy of Medicine, February 9, at the Portsmouth General Hospital. —Sol Asch, M.D., secretary.

MEIGS

Officers of the Meigs County Medical Society for 1942 include: Dr. R. E. Boice, Middleport,

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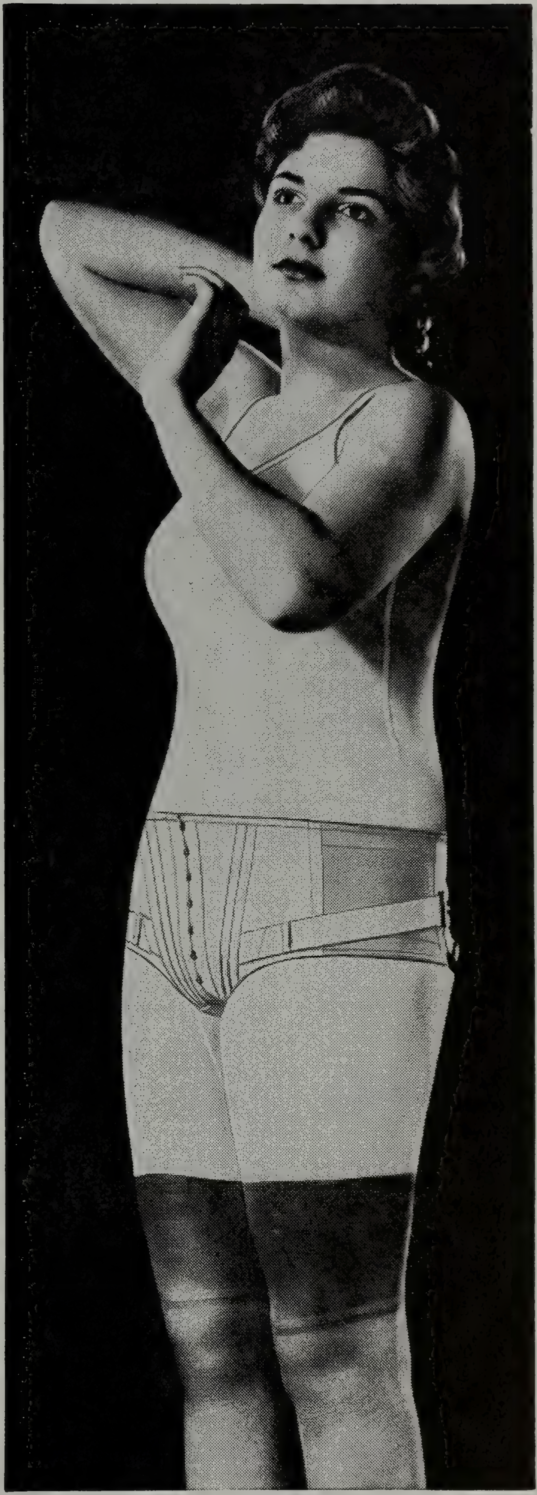

president; Dr. F. M. Cluff, Middleport, acting secretary-treasurer; Dr. Boice, chairman, committee on medical preparedness.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during February:

February 2—"Head Injuries — Civilian and Military", Dr. Joseph P. Evans, department of surgery, University of Cincinnati College of Medicine.

February 16—"Etiology and Treatment of Infantile Diarrhea", Drs. E. H. Baxter, M. L. Ainsworth, and Miner Seymour.

February 23—Section in General Medicine. "The Professional Man and His Heart", Dr. H. M. Clodfelter.

Irwin A. Johnson, of the staff of radio station WBNS, Columbus, spoke on "Summary of 1941 in Radio", at a meeting of the Woman's Auxiliary, February 16.—Bulletin.

KNOX

New members of the Committee on Medical Preparedness of the Knox County Medical Society are: Dr. F. C. Anderson, Mt. Vernon, chairman; Dr. I. S. Workman, Mt. Vernon, and Dr. E. V. Ackerman, Fredericktown.—John R. Claypool, M.D., president.

MADISON

Dr. E. G. Horton, Columbus, discussed "Pediatrics in General Practice", at a meeting of the Madison County Medical Society, January 29, at the home of Dr. H. E. Karrer, Plain City.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

HURON

Officers of the Huron County Medical Society for 1942 are: Dr. C. B. Thomas, Norwalk, president; Dr. R. A. Blackman, Norwalk, vice-president; Dr. T. V. Gerlinger, Willard, secretary-treasurer; Dr. G. F. Linn, Norwalk, chairman, legislative committee; Dr. R. L. Morse, Norwalk, chairman, committee on medical preparedness; Dr. Thomas, delegate; Dr. Gerlinger, alternate.—T. V. Gerlinger, M.D., secretary.

LORAIN

Dr. Wallace Duncan, Cleveland, spoke on "The Treatment of the More Common Fractures", at a meeting of the Lorain County Medical Society, February 10, at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

RICHLAND

Officers of the Richland County Medical Society for 1942 include: Dr. Howard B. Peck, Mansfield, president; Dr. Edward D. Dowds, Shelby, vice-president; Dr. Charles G. Brown, Mansfield, secretary-treasurer; Dr. Leopold Adams, Mansfield, chairman, committee on medical preparedness; Dr. John S. Hattery, Mansfield, delegate; Dr. Charles L. Shafer, Mansfield, alternate.—George L. Evans, M.D., retiring secretary.

A special meeting of the Richland County Medical Society was held at the General Hospital, Mansfield, January 8, for the purpose of discussing civilian defense and medical preparedness.

Dr. M. D. Shilling, Ashland, district federal aviation medical examiner, spoke on "Recent Medical Contributions Through Observation of Flying Personnel", at a meeting of the society, February 19.—Chas. G. Brown, M.D., secretary.

Psychiatric Institute

The Fifth Institute on Postgraduate Psychiatric Education for State Hospitals under the auspices of the Committee on Psychiatry in Medical Education of the American Psychiatric Association will be given at the Missouri State Hospital, St. Joseph, Mo., March 23-April 4. All physicians interested in psychiatry are cordially invited to attend. Details of the teaching schedule for the institute can be obtained by writing Dr. Franklin G. Ebaugh, care Colorado Psyschopathic Hospital, Denver.

Cincinnati—Two veteran members of the University of Cincinnati College of Medicine were recently given honorary titles of professor emeritus by the Board of Directors. They are: Dr. Mark A. Brown, professor emeritus of medicine, and Dr. Emerson A. North, professor emeritus of psychiatry.

Columbus—New staff officers at White Cross Hospital include Dr. Louis Mark, chairman, and Dr. O. P. Burt, secretary-treasurer.

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Cleveland Medical Library Association Pays Tribute To Dr. Bruner

Dr. William Evans Bruner, professor emeritus of ophthalmology, Western Reserve University School of Medicine, was honored at the annual meeting of the Cleveland Medical Library Association, January 16, when his portrait was presented to the association and an alcove in the library, devoted to the study of ophthalmology, was named for him. The room was made possible by contributions from the Cleveland Ophthalmological Club. Dr. Bruner was a charter member of the association, and had served it as president, secretary, treasurer, chairman of the finance committee and member of the board of trustees.

Following are the new officers of the library association: Dr. Frank S. Gibson, president; Dr. L. A. Pomeroy, chairman of the board; Dr. H. N. Cole, director of finance; Dr. A. T. Bunts, secretary; Dr. Thomas P. Shupe, treasurer; Dr. Robert M. Stecher, director of the library; Dr. Clyde L. Cummer, director of maintenance; Dr. E. P. McNamee, director of membership; Dr. Harold Feil, director of program; Dr. Howard Dittrick, director of museum; Dr. L. J. Karnosh, director of publications. New trustees elected were: Dr. E. E. Beard, Dr. E. H. Cushing, Dr. R. S. Dinsmore, Dr. J. A. Garvin, and Dr. P. G. Moore.

New State Nurses' Examining and Licensing Board Appointed

Appointment of the new five-member state nurses' board, created at the last session of the Ohio General Assembly, has been announced by Governor John W. Bricker. The new board will examine applicants for nurses' certificates and approve schools for nurse training, functions formerly carried on by the State Medical Board and its nurses' examining committee.

Personnel of the board follows: Celia Cranz, Akron, past-president, Ohio State Nurses Association and principal of the Akron City Hospital, five-year term; Zella Nicolas, superintendent of nurses, Toledo State Hospital, four-year term; Sister DeChantal McCarthy, director of nurses, Good Samaritan School of Nursing, Cincinnati, three-year term; Ruth Evans, assistant to the dean, Frances Payne Bolton School of Nursing, Western Reserve University, Cleveland, two-year term; Mabel F. Pittman, superintendent of Findlay Hospital, one-year term.

The Board elected Miss Cranz as president, and appointed Miss Clara F. Brouse, Columbus, secretary-treasurer. Miss Brouse was formerly chief nurses' examiner for the State Medical Board.

Toledo—New staff officers of the Lucas County Hospital include: Dr. Stanley D. Giffen, chief, and Dr. W. W. Green, secretary.

Columbus—Dr. Albert D. Frost spoke on "Papilloedema", at a meeting of the Indianapolis Eye, Ear, Nose and Throat Society, February 12.

Cleveland—Dr. John E. Hannibal is the new chief of surgery at St. John's Hospital, succeeding the late Dr. George P. O'Malley.

Dayton—Dr. Lydia L. Poage, physician at the Dayton State Hospital for 14 years, and formerly a member of the medical staff at Longview Hospital, Cincinnati, retired on December 31.

Steubenville—Jefferson County's new health commissioner is Dr. C. B. Rawers, Bergholz, a practicing physician for the last 15 years.

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Lakeside Hospital Unit Men Think Army Slogan "Hurry and Wait" Well Chosen

A good picture of what goes on in the Army medical officer's mind when he is en route to a secret destination for war services may be found in the January issue of *The Clinical Bulletin* of Western Reserve University School of Medicine. An article entitled "Going Somewhere", by Dr. Carl A. Hamann and Dr. Lewis Bronson, historians of the Lakeside Unit, describes vividly the hustle and bustle and the air of mystery which surrounded the recent departure of the Army's Fourth General Hospital for an unannounced overseas station.

Following a diary-like account of the events from the Unit's departure from Cleveland, January 10 until it arrived at Fort Jackson, S.C., January 12, Drs. Hamann and Bronson tell of the rumor-filled six days in camp during which the hospital staff officers were busy arranging uniforms, submitting to typhoid shots, and telephoning goodbyes and last-minute instructions to families in Cleveland.

"Rumors really began to fly", they write on Tuesday, January 13, "and the situation reaches the point that if one is away from a source of supply for a few minutes, he loses touch and is confused at deciding which countermands which. Fifty per cent of these doubtless will prove accurate, since they are in direct contradiction. That things were moving faster than we suspected was shown when hints were dropped that those whose wives were expecting to come had better get hustling. Telephone lines began to buzz, and it frequently took over an hour to get a clear line".

On Thursday, January 15: "The rumor that the Japs began to sue for peace at hearing we were coming (or are we?) became widely circulated."

Next day: "All rumors point to this as the day of departure, but the time remains obscure. Events take place at great speed, and the telephone calls to our colonels come in almost continuously. . . . At 5 p.m. we are told the train leaves in less than an hour, and, after a hasty dinner, a column is formed and we march—out of step—away, waiving goodbye to our own and everyone's wife. The train leaves at 9:30 and we are convinced that the army motto, "Hurry and wait," is well chosen.

Having thus left Fort Jackson after a six-day introduction to army life, the Clevelanders, according to their historians, spent the next day on the train puzzling over their whereabouts and destination. "Darkness fell, and we are still uncertain. Philadelphia is passed, and the graduates of the University of Pennsylvania attempt to decide by city landmarks if we are going out on the Pennsy to New York or in the direction

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In many patients, depression may occur as an accompaniment of some more fundamental pathology, either organic or psychogenic. In such cases, the physician should bear in mind that while Benzedrine Sulfate will not affect the underlying condition, its stimulatory effects may help to alleviate the depression which so often interferes with the management of the case. It is primarily useful in depressions characterized by apathy and psychomotor retardation, but is contraindicated in patients manifesting anxiety.

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of Harrisburg. Time passes and we don't come to Trenton, so obviously it isn't to be New York.

"Finally, at 11:30 we are stopped at an obscure station, and snow and officers in fur caps are visible. Certainly this is the Indian Town Gap of the rumors. . . ."

After a few hours' rest in the barracks the men were summoned at 5 a.m. to pose for identification photos. "The activity of our colonels now has reached feverish pitch," continue Drs. Hamman and Bronson on Sunday, January 18. "Sentinels are stationed to answer the telephone 24 hours a day, and many of us are assigned to duties."

"Monday—January 19. If possible we are to leave. By 3 p.m. usually well informed sources have it that we leave in day coaches tonight for the point of embarkation, presumably New York, but we still have not been officially informed. This note of uncertainty offers a fitting conclusion to the first part of this narrative."

New Law Designed To Safeguard Quality of Insulin

On December 22, the President approved H.R. 6251 (Public Law 366), a bill to amend the Federal Food, Drug, and Cosmetic Act by providing for the certification of batches of drugs composed wholly or partly of insulin. The necessity for the legislation arose from the expiration of the insulin patent held by the University of Toronto under which standards of purity and strength of insulin have been adequately maintained.

The new law amends the Federal Food, Drug, and Cosmetic Act so that its prohibitions against forging, counterfeiting, simulating or falsely representing or using identification devices without proper authority, will apply in the case of such identification devices as may be required or authorized for insulin. It provides that a drug shall be deemed misbranded if it is, or purports to be, or is represented as a drug composed wholly or partly of insulin, unless (1) it is from a batch with respect to which a certificate or release has been issued under regulations to be promulgated by the Federal Security Administrator and (2) such certificate or release is in effect with respect to such drug.

The Federal Security Administration is directed to establish standards of identity, strength, quality, and purity for drugs composed wholly or partly of insulin and methods of assay to determine whether batches of such drugs, or packages therefrom, meet the standards prescribed by regulation. If standards are set forth in any official compendium, such as the Pharmacopoeia, the Administrator may not prescribe any differing standard.

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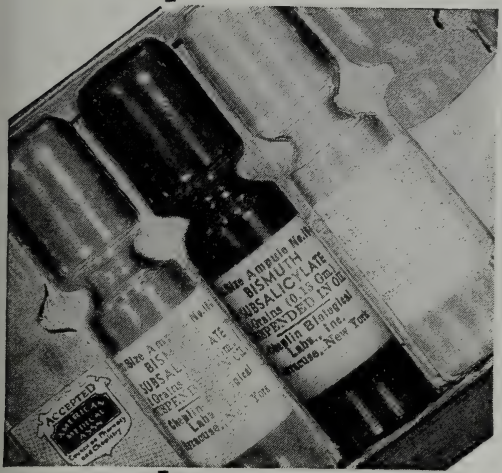

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Buckeye News Notes

Ashland—Dr. C. B. Meuser is the new city health commissioner. He succeeds Dr. R. P. Bogniard.

Ashtabula—Staff officers of the Ashtabula General Hospital are: Dr. T. F. O'Connor, president; Dr. R. B. Wynkoop, vice-president; Dr. P. J. Collander, secretary-treasurer; and Dr. C. C. Campbell, Dr. A. J. Pardee and Dr. S. H. Burroughs, members of the executive committee.

Canton—Dr. John M. Van Dyke spoke on "Medical Economics", at a meeting of the Louisville Rotary Club.

Columbus—Dr. C. J. DeLor spoke on "A Critical Study of the Diagnostic Procedures in Gallbladder Disease", at a meeting of the New York Chapter, National Gastroenterological Association, January 19.

Dayton—Dr. Roy S. Binkley is the new chief-of-staff of St. Elizabeth Hospital. Other officers are: Dr. C. J. Derby, secretary; and Drs. S. H. Ashmun, N. C. Hochwalt and Dwight F. Fritz, members of the executive board.

Delaware—Dr. Elizabeth Workman has been appointed health commissioner of Delaware County. Recently associated with the child hygiene division of the State Department of Health, Dr. Workman had previously practiced in Delaware and Mt. Vernon.

Grover Hill—Dr. J. R. Heath has been re-elected health commissioner of Paulding County for the ninth consecutive term.

Hicksville—Dr. Forder F. DeMuth has been appointed health commissioner of Defiance County, succeeding Dr. H. C. Lindersmith, Sherwood, who resigned because of ill health.

Ironton—Staff officers of General Hospital are: Dr. V. E. Vidt, president; Dr. V. V. Smith, vice-president, and Dr. William A. French, secretary.

Lakewood—New staff officers of Lakewood Hospital are: Dr. E. L. Sherrer, president; Dr. C. W. Burhans, vice-president, and Dr. R. B. Crawford, superintendent of the hospital, secretary-treasurer.

Lodi—Staff officers of Lodi Hospital are: Dr. J. L. Jones, Medina, president; Dr. J. G. Whitacre, Lodi, vice-president, and Dr. Paul F. Overs, Spencer, secretary-treasurer.

Logan—Dr. V. A. Simiele spoke on "Treatment of Infantile Paralysis", at a meeting of the Rotary Club.

London—Dr. A. J. Helm, Madison County health commissioner, will also serve as health commissioner of Union County, under a joint agreement between the health boards of the two counties.

Lorain—New staff officers of St. Joseph's Hospital are: Dr. H. F. Ross, president; Dr. Ethel D. Pillion, vice-president, and Dr. Albert B. Chapla, secretary-treasurer.

Mansfield—Officers of the staff of General Hospital for 1942 are: Dr. L. D. Bonar, president; Dr. G. L. Evans, vice-president; Dr. J. J. Campbell, secretary, and Dr. C. R. Keller, treasurer.

Massillon—New staff officers of City Hospital are: Dr. H. P. Hart, president; Dr. O. Whitlaw Show, vice-president, and Dr. L. M. Snively, secretary-treasurer.

New Matamoras—Dr. H. E. Dickson has been appointed health commissioner of Washington County, succeeding Dr. A. G. Sturgiss, Marietta, who had served in that post for 21 years.

Oak Harbor—Dr. A. S. Mack has been reappointed Ottawa County health commissioner.

Portsmouth—New officers of the staff of General Hospital are: Dr. Ross Moore Gault, president; Dr. G. E. Neff, vice-president, and Dr. George D. Blume, secretary-treasurer.

Ravenna—Dr. L. W. Prichard reviewed his 50 years of medical practice in an address before fellow-members of the Rotary Club.

Tiffin—Dr. Frank Ternocky, Bloomville, has been appointed health commissioner of Seneca County, succeeding Dr. C. S. Heimlick, Attica, who resigned recently.

Troy—Dr. L. N. Lindenberger is the new chief-of-staff of Stouder Hospital.

Warren—Dr. Walter W. McKay has been elected president of the staff of City Hospital. Other officers include: Dr. Paul C. Gauchat, vice-president; Dr. Roger H. McCaughtry, secretary, and Drs. Charles W. Thomas, Royal B. Dobbins and A. H. Seiple, members of the executive committee.

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The Physician's Bookshelf

The Premature Infant, Its Medical and Nursing Care, by Julius H. Hess, M.D., and Eveline C. Lundeen, R.N. ($3.50. *Lippincott, Philadelphia),* is a new book of vast interest to every physician and nurse who attends these cases.

Arthritis in Modern Practice, The Diagnosis of Management of Rheumatic and Allied Conditions, by Otto Steinbrocker, M.D., with chapters on painful feet, posture and exercises, splints and supports, manipulative treatment, and operations and surgical procedures by John J. Kuhns, M.D. ($8.00. *W. B. Saunders & Company, Philadelphia),* is a practical source of information incorporating the newer methods in the diagnosis and treatment of rheumatic disease. This is a book which should be read by every practicing physician.

Professional Adjustments, by Gene Harrison, R.N. ($2.25. *C. V. Mosby Company, St. Louis)* is intended for freshman students in nursing and states very well the essential ethics of the young woman in a school of nursing.

Beauty and Health, by J. Howard Crum, M.D. ($2.00. *Smith & Durrell, New York City),* presents a course in loveliness based on hygiene, diet, exercise and honest attempts to obtain good health and posture by a physician who has served as a beauty consultant for over 30 years.

Shock Treatment in Psychiatry: A Manual by Lucie Jessner, M.D., and V. Gerard Ryan, M.D. ($3.50. *Grune & Stratton, New York City),* presents a brief practical review of the subject, including personal experiences and opinions. Insulin therapy, metrazol and convulsive treatment are outlined in 126 interesting pages.

A Primer for Diabetic Patients: An Outline of Treatment For Diabetes, With Diet, Insulin and Protamine-Zinc Insulin, including directions and charts for the use of physicians in planning diet prescriptions, by Russell M. Wilder, M.D. ($1.75. *W. B. Saunders & Company, Philadelphia),* seventh edition; has been brought out because of the necessity to describe an improvement in the procedure of protamine-zinc insulin. In addition to this the book contains all the excellent material of the previous editions setting forth the methods of the Mayo Clinic.

Ontogeny and Such as Isos, by M. H. Kutch, M.D., ($1.50. *Christopher Publishing House, Boston, Massachusetts),* gives a complete picture of the author's concept of evolution and reproduction in a manner that baffles us.

Rheumatic Fever in New Haven, Edited by John R. Paul, M.D., Professor of Preventive Medicine, Yale University ($1.00. *Science Press, Lancaster, Pennsylvania, U.S.A.)* represents a study made possible by the Millbank Fund and

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presents a study of this disease in a moderate sized American city. When taken together with five other studies of somewhat the same type in larger cities which have appeared recently makes a beginning for a series of valuable general conclusions. Clinically, rheumatic fever appears to be a systemic infection with carditis as its most serious aspect. Immunologically, it seems to be one of the late, non-suppurative manifestations of a hemolytic streptococcus infection. Pathologically, it seems to be a unique chronic infection with specific lesions quite different from those seen in the usual streptococcus disease, which are concentrated for the most part in the vascular system. Epidemiologically, it is a disease of childhood and a crowd disease, which is commonest in temperate climates among urban people.

Leaders of Medicine: Biological Sketches Of Outstanding American and European Physicians, by Solomon R. Kagan, M.D. ($3.00. *Medico-Historical Press, 40 Harrison Avenue, Boston, Massachusetts)*, presents interesting sketches of: Jacob Henle, Rudolph Virchow, S. Weir Mitchell, Abraham Jacoby, Sir Thomas Allbutt, Jacob da Silva, Solis-Cohen, John Shaw Billings, Julius Cohnheim, Carl Weigert, Sir William Osler, William Henry Welch, Paul Ehrlich. It will make an inspiring little volume to put at your bedside this winter.

The Road to Health, by Theodore Hubert Larson, M.D. ($2.00. *Better Health Publishers, Pasadena, California)*, is a manual in which great emphasis is placed upon what the author calls "The Laws of Life". Is a strange mixture of well-known facts and curious theory all clothed in a queer jargon which must be very scientific because it sounds that way.

Test It Yourself, Chemistry Experiments with Consumer Applications, by L. F. Tuleen, Willard L. Muehl and George S. Porter, teachers of chemistry for high school and junior colleges (96¢ list. *Scott, Foresman and Company, Chicago)*, is of interest even to an old man in that it applies the principles of chemistry in the solution of problems which we confront in our everyday life, water softener, anti-freeze, cosmetics, fizz water, textiles, soils, etc.

Vitamin Content of Meat, by Harry Waisman, Ph.D., and C. A. Elvehjem, Ph.D. ($3.00. *Burgess Publishing Co., Minneapolis)*, is an attempt to give popular distribution to this important subject. The agricultural station of the University of Wisconsin with which the authors are connected has long emphasized the importance of animal nutrition research in any program to advance the welfare of farm people and bring about better nutrition for our nation's popula-

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tion. This book should be helpful in attaining these objectives.

The Hearing of School Children, A Statistical Study of Audiometric and Clinical Records, by Antonio Ciocco and Carroll E. Palmer ($2.00. *Monographs of The Society In Child Development*, Volume VI, Serial No. 29, No. 3), is a report in detail of the results of an investigation which the U. S. Public Health Service has conducted on the hearng of school children.

Plain Words About Venereal Disease, by Thomas Parran, M.D., and R. A. Vonderlehr ($2.00. *Reynal and Hitchcock, New York City*), is a plain report to the American people on what the author calls the "work of the greatest saboteurs". While it is our opinion that this is a sensational exposure such a presentation may be necessary to arouse the American people who apparently only move when they become disturbed. We take a great deal of satisfaction in the fact that the Thirty-Seventh Division of Ohio boys has a surprisingly low venereal rate.

Immunity Against Animal Parasites, by James T. Culbertson ($3.50. *Columbia University Press, New York*), is a fundamental text for those just beginning the study of the unity of parasitic forms. The author has assumed that the reader has a working knowledge of parasitology and immunology and he attempts to bring the two together—very successfully!

Heart Disease, by Marion E. Anderson, M.D. $1.00. *(Allan Printing Co., Clinton, Iowa)*, is a very attractive little book based upon a study of every writing on heart disease that has appeared in the *Journal of the American Medical Association* during the past 30 years, supplemented by the reading of a long list of texts and the author's personal experience. These hundred pages more than repay for the investment and are well worth your reading no matter what your interest in medicine may be.

Immunization to Typhoid Fever: Results Obtained In The Prevention of Typhoid Fever In The United States Army, United States Navy, And Civilian Conservation Corps, by The Use of Vaccines: Influence of Anti-genic Structure and Other Biological Characters of E. Typhosa on the Production of Protective Antibodies In the Blood of Immunized Individuals: Increases in Protective Antibodies In The Blood Following The Use of a Single Small Dose of Vaccine for Re-Immunization Purposes As Compared With The Use of The Three Doses ($2.50. *The Johns Hopkins Press, Baltimore, Maryland*), presents the researches of the Army Medical School on this important topic.

The Toxemias of Pregnancy, by William J. Dieckmann ($7.50, *Mosby, St. Louis*), assembles and correlates the pertinent data on this im-

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portant subject. The author presents summaries of the literature wherever possible based upon his own extensive experience. The book belongs in the library of (1) every obstetrician to bring him up to date on physiology as it pertains to pregnancy and (2) every pathologist and investigator to bring him up to date on the physiology and pathology of obstetrics.

Allergy in Clinical Practice, by Staff Members of the Cleveland Clinic, edited by J. Warrick Thomas ($5.00. *Lippincott, Philadelphia),* is an attempt to help the clinician evaluate allergy as a part of his patient's problem by presenting the attitude of this well known group as to the possible role of allergy in the various phases of clinical medicine. The liberal use of clinical case histories makes the book much more interesting and valuable.

The Treatment of the Patient Past Fifty, by Ernst P. Boas, M.D. ($4.00. *Year Book Publishers, Chicago, Ill.),* is a timely volume on this ever increasingly important topic and therefore has a place of great value in the library of every practicing physician no matter what his field.

Immunology, by N. P. Sherwood, M. D. ($6.50. Second Edition, *C. V. Mosby Co., St. Louis),* has been improved by revision and by two new chapters, one on the reticulo-endothelia system and the other on serum reactions. This makes a book well worth the reading by any physician and an important reference to those especially interested in immunology.

Synopsis of Allergy, by Harry L. Alexander, M.D. ($3.00. *C. V. Mosby Co., St. Louis),* is an excellent manual of the subject of allergy in the terms of present day thought.

Synopsis of Genito-Urinary Diseases, by A. I. Dodson, M.D. ($3.50. Third Edition, *C. V. Mosby Co., St. Louis),* has been revised to include the new cemotherapeutic agents and the indication for these new drugs, thus bringing an excellent manual up to date.

The March of Medicine, New York Academy Lectures to Laity, 1941 ($2.00. *Columbia University Press),* presents six lectures: Humanism and Science, Alan Gregg, M.D.; Paracelsus In the Light of Four Hundred Years, Henry E. Sigerist, M.D.; Psychiatry and the Normal Life, William Healy, M.D.; Philosophy as Therapy, Erwin Edman, Ph.D.; The Promise of Endocrinology, Oscar Riddle, Ph.D.; What We Do Know About Cancer, Francis Carter Wood, M.D.

Correction

The author of **A Manual of Bandaging, Strapping and Splinting** is Augustus Thorndike, Jr., M.D., instead of Augusta Forndike, Jr., as published on The Physician's Bookshelf page of the February, 1942, issue of *The Journal.*

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Mediterranean Anemia in the Adult

(A Family History Analysis)

MORTON L. GOLDHAMER, M.D.

"ERYTHROBLASTIC anemia" was originally described by Cooley[1] as a hypochromic anemia of Greek, Syrian, or Italian children, characterized by erythroblastosis out of proportion to the anemia, reticulocytosis, leucocytosis, splenomegaly, bone changes, often a Mongoloid facies, and a familial tendency. "Mediterranean disease", or "Thalassemia", have been suggested[2] as more appropriate names. Whereas the disease described by Cooley usually terminated fatally, Caffey[3] and Thalheimer[4] indicated that similar anemias would be seen in adults if sought for. Recently there have appeared descriptions[5,6] of an anemia in adults, resembling Mediterranean anemia.

The Author

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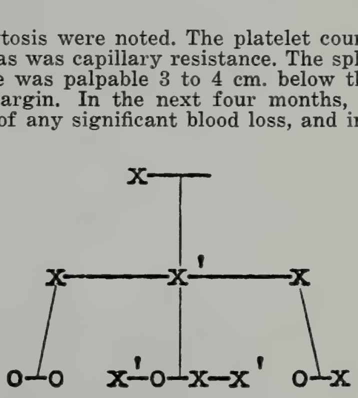
An opportunity has been afforded us to study three generations of a family, several of whose members present the blood findings of Mediterranean anemia of the adult type (Chart 1). These cases are described to call attention to the significant findings, and particularly to emphasize the familial tendency:

M.D., a white female, born in the United States, in 1908, of Italian parentage, was admitted to the Prenatal Clinic in July, 1936. Her past history was significant in that she had had puerperal sepsis and hypochromic anemia in 1925; but normal blood counts (R.B.C. 4,400,000 per cu. mm., Hb. 13.6 gms., W.B.C. 8,600 per cu. mm.) had been found in January, 1936.

The course of her pregnancy was normal until November, 1936, when moderate anemia (R.B.C. 3,600,000 per cu. mm.) with severe hypochromia (Hb. 7.2 gms.), and marked anisocytosis and poikilocytosis were noted. The platelet count was normal, as was capillary resistance. The spleen at this time was palpable 3 to 4 cm. below the left costal margin. In the next four months, in the absence of any significant blood loss, and in spite of adequate iron therapy, the anemia increased. At term, March, 1937, the red blood count was 2,100,000 per cu. mm., hemoglobin 5.6 gms.; the spleen was now palpable 10 cm. below the left



o — blood normal
x — blood suggestive
x'— blood characteristic

Chart 1. Distribution of red blood cell abnormalities in T.P. and descendants.

(From the Hematology Clinic of the Department of Medicine, Mount Sinai Hospital, Cleveland, Ohio).

Submitted January 8, 1942.

costal margin and the liver 3 cm. below the right costal margin. Red cell fragility was normal; hemolysis in vivo could not be demonstrated. Blood films showed anisocytosis and poikilocytosis, considerable basophilic stippling, and occasional normoblasts.

Between March, 1937, and March, 1938, despite intensive anti-anemic therapy there persisted a hypochromic anemia with evidence of increased erythropoietic activity. Spherocytosis could not be demonstrated. Occasional target cells were present. Platelet counts were normal; red cell fragility was slightly decreased. Urobilinuria was not present, but the icteric index was slightly elevated, 11 and 14. Lead poisoning was ruled out by history, and urine examinations. Because of the concomitant development of the splenomegaly and hemopoietic disorder, the belief that increased blood destruction was the underlying cause of the disorder, and the occasional evidences of hemolysis in vivo, it was deemed advisable to remove the spleen. Splenectomy was performed March, 1938. The spleen weighed 738 grams. The pathological diagnosis was Banti's disease.

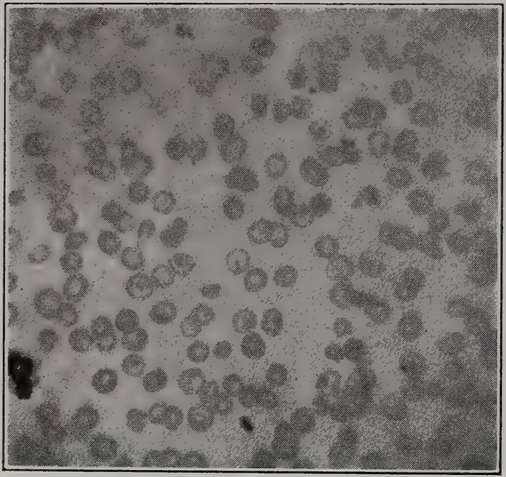


Fig. 1. M.D. Peripheral blood X 440.

Following splenectomy her condition remained stationary. Hypochromia persisted (average Hb. 9.6 gms.) with moderate to no decrease in the number of red cells (average R.B.C. 3,500,000-4,000,000 per cu. mm.); blood films (Figures 1, 2), show anisocytosis and poikilocytosis, polychromasia, occasional eosinophilic and basophilic normoblasts and stippling. Macrocytic cells are generally present, however these are hypochromic and probably represent flat, thin cells of volume not much greater than normal. Target cells are regularly present, sometimes as many as 8 to 10 per oil immersion field. Reticulocytosis is constant, usually 3 to 4 per cent, but reaching 10 to 18 per cent at times, unassociated with any clinical evidence of hemolytic crises or hemorrhage. Red cell fragility is definitely decreased, hemolysis starting in 0.3 per cent saline and being complete at 0.1-0.15 per cent (normal control shows beginning hemolysis at 0.45 per cent, complete at 0.3 per cent). Bleeding and clotting times are normal. Prolonged study of wet preparations of blood show none of the sickling phenomena. Thick blood films show no malarial forms. The packed cell volume is slightly increased (hematocrit 45 per cent), the cell volume index slightly above 1.0, and the mean corpuscular hemoglobin sharply diminished (20.2 micromicrograms, normal average 27-32). Sternal bone marrow studies, by puncture method, show definite increase in the erythropoietic activity, there being 65 eosinophilic and basophilic normoblasts, and 7 megaloblasts per 100 white cells (normal average is 18 normoblasts and 4 megaloblasts). X-ray studies have shown generalized decalcification of the long bones and thickening of the tables of the skull. There is no achorhydria. Blood chemistry and serology (Kline) are normal. Gastro-intestinal series, barium enema, cholecystography, liver function tests, stool examination and basal metabolic determinations all give normal findings. Urobilinuria is occasionally present.

Therapy has included a high protein and high vitamin diet, iron (both orally and by injection), liver (orally and parenterally), vitamin B complex, transfusions when necessary, and therapeutic sterilization, by radium, in an attempt to prevent even the normal menstrual loss of iron.

This woman has had eight pregnancies, three terminating in the second month. One child died at the age of six months due to "convulsions and pneumonia"—there was no icterus or hemorrage.

Study of the four surviving children gives the following information:

T.D., male, 16 years of age. Past history is not significant. R.B.C. 5,980,000 per cu. mm., Hb. 12.8 gms. Blood film reveals considerable anisocytosis and poikilocytosis, many target cells and stippled cells. Hemolysis of the red cells begins in 0.35 per cent saline and is complete in 0.2 per cent as contrasted to normal control readings of 0.45 per cent-0.3 per cent. There is no splenic enlargement.

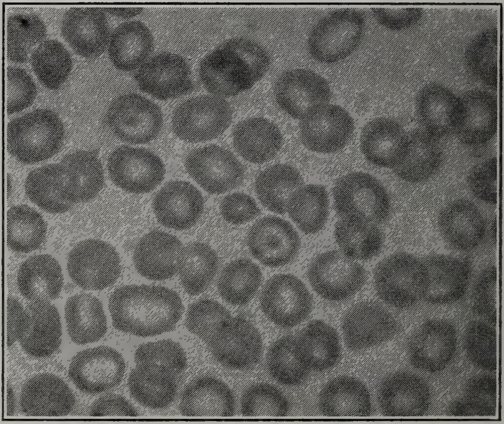


Fig. 2. M.D. Peripheral blood X 950.

C.D., female, 12 years of age. History is negative. Blood is entirely normal.

B.D., male, eight years of age. History is not significant. The blood film reveals moderate anisocytosis and poikilocytosis, and an occasional target cell. Spleen is not palpable.

P.D., male 3½ years of age. He has had pneumonia on two occasions. There has been no icterus, hemorrhage, or purpura. The spleen is barely palpable. R.B.C. 4,800,000-6,000,000 per cu. mm., Hb. 10.4-12.4 gms. Film shows marked variation in the size and shape of the red cells, many target cells and stippled cells, and an occasional normoblast (Figure 3). Red cell fragility is decreased, hemolysis beginning in 0.35 per cent saline, and being complete at 0.2 per cent saline.

Examination of the blood of I.D., the father of these children, shows only moderate hypochromia and anisocytosis.

Blood films have been made of all available blood relatives of M.D., with the following results:

T.P., father of M.D., age 52, born in Italy. Anisocytosis and poikilocytosis, polychromasia, moderate numbers of target cells and stippled cells.

T.B., sister of M.D., age 29, born in United States. Moderate variation in the size and shape of the red cells, hypochromia, moderate macrocytosis, occasional basophilic stippling.

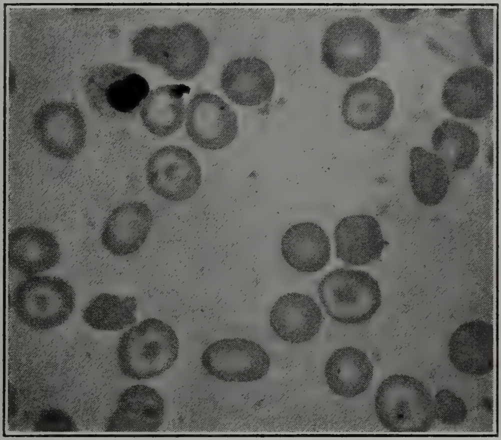


Fig. 3. P.D. Peripheral blood X 950.

B.B., daughter of T.B., age 10. Blood normal.

J.B., son of T.B., age 6. Shows only moderate anisocytosis.

M.S., sister of M.D., age 27, born in United States. Hypochromia, anisocytosis, occasional stippled cells.

F.S., son of M.S., age 9. Blood normal.

L.S., son of M.S., age 7. Considerable variation in the size and shape of the red cells, a very occasional target cell.

The mother of M.D. died in 1919 "of influenza". No pertinent history is available.

DISCUSSION

As described in the literature this condition has occurred almost entirely in persons born on the northern shore of the Mediterranean or descended from that stock.

Wintrobe[5,12] feels that this hemopoietic disorder represents a less severe form of Cooley's (erythroblastic) anemia, permitting the patient to reach adult life. The basic fault is presumed to be a heredity anomaly of red cell formation—probably transmitted as a Mendelian recessive. In this respect, Mediterranean disease, familial hemolytic icterus, and sickle cell anemia are similar. In Mediterranean disease it is thought that the abnormal cell is formed with an excessive corpuscular membrane, but contains little substance—it is a flat, thin cell. Barrett[7] states that, in blood in the fluid state, these cells appear to be bowl shaped, and that folding of the cell membrane during drying causes a characteristic (bull's eye) appearance—the "target cell", or, as suggested by Haden and Evans[8] "Mexican hat cell".

Haden[9] has shown that the resistance of a cell to hemolysis by hypotonic saline is a function of its volume—thickness index. This index is greatest, and fragility is most marked, in a spherical cell (familial hemolytic icterus); contrariwise, such a cell as the target cell resists hemolysis because there is much room for expansion before the spherical shape is reached.

The target cell is present in conditions other than Mediterranean disease. Barrett finds these cells in cases of obstructive jaundice, certain hypochromic anemias, steatorrhea, and in some cases following splenectomy.

In so far as Mediterranean disease is concerned it is felt that the attempt of the marrow to compensate for faulty cell formation is in the direction of increased red cell formation—hence the reduction in the number of red cells is less conspicuous than is the hypochromia. Evidences of markedly increased erythropoietic activity are present, basophilic stippling being prominent, polychromasia and reticulocytosis common, and normoblastosis infrequent although not rare. Target cells are regularly present, and because of this the red cells exhibit increased resistance to hemolysis by hypotonic saline, hemolysis often not being complete until 0.1 per cent saline is used. Despite this decreased fragility in vitro, there may be slight evidence of hemolysis in vivo. The bone marrow shows a marked increase in erythropoietic activity. As a consequence of this increased marrow activity, osteoporosis may be present, although bone changes are of less severity than those seen in Cooley's anemia. Splenomegaly is usually present; liver enlargement may or may not occur.

Our experience with anti-anemic therapy in this condition has been unsatisfactory—in this we are in agreement with Wintrobe.[5] Dameshek[6] reported a satisfactory response to iron.

Whereas Mediterranean disease is at present relatively uncommon, both in childhood and adult forms, investigations of osseous remains of the Mound Builders of eastern Arkansas,[10] and of the members of the Mayan nation,[11] indicate that in ages past whole civilizations may have been decimated by a similar disease. For this reason, Atkinson[11] has suggested the application of eugenic principles to patients suffering from

Mediterranean disease, and those blood relatives in whom study shows target cells and increased resistance to hemolysis.

SUMMARY

Examination of 12 individuals, representing three generations of a family of Italian descent, reveals the presence in members of each generation of similar abnormalities of the red blood cells. In some instances these abnormalities are considerable, and highly characteristic of the adult type of Mediterranean anemia. On the other hand, several persons show suggestive, but lesser, abnormalities of red cell development, the significance of which cannot as yet be definitely evaluated.

These individuals represent forms of an adult type of Mediterranean anemia. The condition varies in severity, but is in all instances sufficiently less serious than Cooley's anemia to permit the persons to reach adolescent or adult life.

Most important in the diagnosis of this condition are an awareness of the possibility of its presence, and especially of the familial tendency, and the discovery of target cells and increased resistance of the red cells to hemolysis in hypotonic saline.

All forms of therapy have proved unsatisfactory in the treatment of this anemia.

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1100 Keith Bldg.

Nasal Therapy in the Common Cold

Let us consider the drugs commonly used in the nose. To start with the vehicle,—mineral oil is a common vehicle for nasal medicaments. Although it does no chemical harm to cilia, it does cause them embarrassment because of its inability to mix with mucus. Oil lies inert on top of the mucous blanket and its added weight gives the cilia more work to do. Further, because it mixes poorly with mucus any drug dissolved in oil reaches the epithelium slowly. Third, the very real danger of aspiration of nasal medication should be a warning against using mineral oil in the nose for fear of producing lipoid pneumonia. This applies specially to infants and the aged. Watery solutions should be isotonic. Hypotonic or hypertonic solutions cause destruction of cilia.

The vasoconstrictors commonly used are epinephrine, ephedrine and neosynephrin, other preparations of like sort, and benzedrine. Epinephrine causes almost immediate cessation of ciliary function. Although it does cause quick and complete vasoconstriction, its effect lasts but a short time and is followed by a period of vasodilatation which may be prolonged. Ephedrine and neosynephrin, on the other hand, stimulate cilia to increased activity and although their vasoconstrictive action is slower than that of epinephrine, it lasts longer and is not followed by a phase of vasodilatation. Benzedrine does no harm to cilia. It is, however, a severe central nervous stimulant and if used should be used cautiously.

Antiseptics are frequently recommended for use in the nose. I have yet to find a substance that will kill bacteria without also ruining the nasal mucosa.

It is claimed that the silver preparations are nonirritative, nontoxic and antiseptic. I found that organisms mixed with the 10 per cent solution of the common colloidal silver preparations were viable after 44 hours at room temperature. These preparations, although they do no chemical injury to cilia, do precipitate and cause ciliary clogging. Further, if they are aspirated they cause considerable damage to lung tissue. I can find very little excuse for their use.—Theodore Walsh, M.D., St. Louis, Mo.; Wisc. Med. Jour., Vol. 41, No. 3, March, 1942.

One small straw that points a dreadful wind. During the first two years of the war (England) deaths from tuberculosis increased in Glasgow about 41 per cent. The 1941 record shows no improvement. Overwork, strain, ill-spent leisure are thought to be responsible for the rise.—S. Laidlaw, M.D. and D. MacFarlane, M.D., British Med. Jour., September, 1941.

Leukocytosis in the Cerebrospinal Fluid in Cerebral Hemorrhage

WILLIAM E. MOLLE, M.D.

EXTREME pleocytosis may be said to exist when more than 250 white cells per cubic millimeter of cerebrospinal fluid are present.[3] Merritt and Fremont-Smith[4] term this phenomenon marked pleocytosis. Marked pleocytosis usually is present in acute purulent meningitis and it is sometimes associated with meningitis due to syphilis, tuberculosis, or yeast. Other forms of neurosyphilis, poliomyelitis and a septic focus in the cranium, such as extradural or cerebral abscess may cause marked pleocytosis. More rarely, such a reaction in the cerebrospinal fluid may be produced by necrosis of the ventricular walls by an intracerebral hemorrhage[4] or by a brain tumor.[5]

The fallacious impression is generally held that all patients with cerebral hemorrhage have bloody cerebrospinal fluid. It is widely known, to be sure, that cerebral thrombosis is practically never associated with bloody cerebrospinal fluid.[1] Because the occasional occurrence of a pleocytic reaction in the cerebrospinal fluid of cerebral hemorrhage where the fluid is not bloody, is not recognized widely it seems pertinent to discuss the matter briefly. A case record may be illustrative.

A 34-year-old negress was admitted to the neurological service of the Cincinnati General Hospital at 2:30 A.M. on July 13, 1941, following the sudden onset of paralysis of the left extremities at 1:00 A.M. of the same day. Her husband stated that she had suffered from severe headaches for several months, and on the day prior to admission she complained of pain in the left arm. There was no history of venereal infection and two blood Kahns had been negative in the past. She was known to have had hypertension for at least three years because she was observed regularly at the out-patient department of the Cincinnati General Hospital for that length of time. The diagnosis at the clinic had been obesity and hypertension. During the three-year period before the onset of the cerebral hemorrhage, the blood pressure had ranged from 210/140 to 145/100. Occasional exertional dyspnea and slight ankle edema were noted, but these symptoms were infrequent and minor.

When she was examined on July 13, 1941, she was alert and attempted to cooperate. She did not talk. She was obese, blood pressure was 150/104, pulse rate 100 per minute, temperature 99.2 degrees (rectal), and the respiratory rate was 28 per minute. The following neurological abnormalities were noted: weakness of the left masseter muscle, left lower facial paralysis, protrusion of the tongue to the left, marked paresis and flaccidity of the left extremities which moved very rarely and then only slightly, and hypesthesia and hypalgesia grossly over the left half of the body. She appeared to have a left homonymous hemianopsia. A Hoffmann response was present in the left hand and the left abdominal reflexes were not obtained. Occasional extensor plantar responses were present on the right. Plantar responses on the left were flexor.

Laboratory data were normal except for the presence of albumin in the urine. The white blood cell count was 7600 per cubic millimeter with a normal differential on admission to the hospital, and on the following day it rose to 9950 per cubic millimeter. Lumbar puncture performed on July 13, revealed an initial pressure of 190 mm. of water and a final pressure of 130 mm. of water, after the removal of 10 cc. of water-clear cerebrospinal fluid. One lymphocyte and 185 red blood cells per cubic millimeter were present; the Pandy test was negative; total protein content was 15 mg. per cent; the Wassermann reaction was negative; and the colloidal gold curve was normal.

On July 14, she became stuporous, and on the evening of that day the temperature had risen to 102 degrees (rectal), the pulse rate was 110 per minute and the respiratory rate was 40 per minute. There were observed aimless movements of the right arm and leg. The pupils, which had been 3 mm. in diameter, regular in outline, and which had reacted normally to light on admission, then were 7 mm. in diameter on the right and 3.5 mm. on the left. The pupils did not react to light. Both left extremities were spastic, the upper was flexed and the lower extended. No Hoffmann or abdominal reflexes were obtained. The tendon reflexes were more active on the left than on the right. Plantar responses were bilaterally extensor, the reaction was more marked on the right.

Another lumbar puncture was performed and the pressures were not recorded. Six cubic centimeters of grayish, turbid, cerebrospinal fluid were removed. The fluid grossly had the appearance of that seen in purulent meningitis. It did not clot. The Pandy test was strongly positive. There were 3200 white cells per cubic millimeter, 75 per cent of which were polymorphonuclear leukocytes. The remainder of the cells were mainly lymphocytes with some mononuclears. The total protein content of the cerebrospinal fluid was 172 mg. per cent, sugar 55 mg. per cent, and chloride 752 mg. per cent. Cerebrospinal fluid and blood cultures taken at this time were sterile.

Because of the known hypertension, youth of

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the patient, premonitory symptom of pain in the left arm, and the progression of neurological signs, the diagnosis of intracerebral hemorrhage on the right was thought most likely. However, in view of the cerebral fluid findings, several observers thought brain abscess a possible diagnosis.

On July 15, respirations were rapid and labored. She carried out simple requests and responded to painful stimuli, but did not speak. Except for some stiffness of the neck, the findings had not been changed. The diagnosis at this time was hemorrhage into the right temporoparietal region.

Because intracerebral hemorrhage has been successfully evacuated[2,6] and because cerebral abscess was considered a remote possibility, exploratory burr holes were placed on July 15. Ventriculography disclosed a marked shift of the ventricular system from the right to the left and compression of the lateral wall of the right lateral ventricle. The maximum point of shift appeared to be approximately in portion two of the lateral ventricles. There was some displacement of the right lateral ventricle downward and the third ventricle also was shifted markedly from the right to the left. These studies indicated the presence of a space displacing lesion lateral to the body of the right lateral ventricle in the region of portions two and possibly three.

Fluid obtained from the right lateral ventricle was grossly clear, but solidified spontaneously, suggesting that the protein content was extremely high. The ventricular needle was carried forward through the floor of the right lateral ventricle into the region of the basal ganglia. Aspiration here resulted in the withdrawal of cerebral tissue mixed with blood clot, about 20 cc. of material being removed.

A section of the tissue obtained by aspiration was stained with hematoxylin and eosin. Microscopic examination revealed fragments of cerebral tissue infiltrated with hemorrhage. Aggregations of polymorphonuclear leukocytes were prominent in the region of the hemorrhage. No phagocytes were seen and there was no evidence of infection or neoplasm. It was believed that the sections typically represented a relatively early stage of cerebral hemorrhage.

Following operation, the temperature rose to 105 degrees (rectal), the pulse rate to 130 per minute, and the respiratory rate to 50 per minute. She was more alert and at one time mumbled "all right" when asked how she felt. On the third post-operative day, however, she lapsed into coma. Temperature, pulse, and respirations rose and she died on July 19, four days after the operation. Cerebrospinal fluid removed immediately after death was grossly bloody. Permission for autopsy could not be obtained.

DISCUSSION

The youth of the patient (aged 34), the hypertension of at least three years duration, the premonitory pain in the left arm, the abruptness of onset of the hemiparesis and the progression of neurological signs, the shift of the ventricular system to the left, and the finding of polymorphonuclear reaction and hemorrhage in the biopsy specimen, are adequate evidence of cerebral hemorrhage.

In 68 patients studied by Aring and Merritt[1] in whom cerebral hemorrhage was proved by the autopsy, 74 per cent had had bloody cerebrospinal fluid. In this series from 100 to 1000 white cells per cubic millimeter were found in the initial examination of the cerebrospinal fluid in two cases where the fluid was clear and without gross blood. In two others there were 2900 and 3600 white cells per cubic millimeter respectively, in subsequent fluids obtained after the initial tap. These patients had negative blood and cerebrospinal fluid Wassermann reactions, so that syphilis could not be implicated. Polymorphonuclear leukocytes were the predominating cell in fluids with the highest cell counts.

It must be remembered that in cerebral hemorrhage, the cerebrospinal fluid may be clear (26 per cent of cases). It may contain few or no white blood cells, or it may contain several thousand leukocytes and resemble the fluid found in purulent meningitis. The sterility of the fluid and the rather typical appearance of "stroke" should indicate clearly that a cerebral hemorrhage has occurred which is confined to the hemisphere and has not leaked into the ventricles or the subarchanoid space. Advancing neurological signs are rather typical of cerebral hemorrhage of this type.

Cerebral thrombosis may be considered but it is rare to find over 50 white cells per cubic millimeter in the cerebrospinal fluid in this condition, particularly if syphilis can be excluded. Pleocytosis may be encountered in cerebral embolism, but the differential diagnosis between this condition and cerebral hemorrhage is usually not difficult. Auricular fibrillation, mitral and aortic vegetations, mural thrombosis of the left ventricle, or some similar embolic source usually presents itself as the source of the cerebral embolus.

A history of hypertension, or of sudden catastrophic onset with severe headaches, vomiting, convulsions or immediate loss of consciousness, signs of progression, abnormalities of respiration, abnormalities in the eyes (motor or pupillary), stiffness of the neck, bilateral occurrence of plantar extensor responses and high initial leukocyte counts in the blood all occur with greater frequency in cerebral hemorrhage than in other types of "stroke". Consideration of these signs should aid in the clinical differentiation between cerebral hemorrhage and infections of the central nervous system, if too much weight is placed on the pleocytosis which may occur in either condition.

SUMMARY

As many as 3000 white cells per cubic millimeter may be found in cerebrospinal fluid, which is not grossly bloody, of patients who have suffered a cerebral hemorrhage. The differential diagnosis of this combination of signs and symptoms from other conditions which produce pleocytic fluids is not difficult if the following points are kept in mind: (1) cerebral hemorrhage which does not reach the cerebrospinal fluid spaces may result in a high leukocyte count in the cerebrospinal fluid, and (2) the onset of cerebral hemorrhage is unique as compared to other conditions that may result in high white cell content in the cerebrospinal fluid.

I am indebted to Dr. Charles D. Aring for assistance in the preparation of this paper.

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Undulant Fever

In my own experience, sulfanilamide was used in three cases in doses ranging from 75 to 25 grains a day. In all three instances the temperature returned to normal and the patients felt much improved within four or five days of the onset of treatment. In addition to the sulfanilamide, I used Lederles Brucella melitensis vaccine containing 2,000,000 heat-killed organisms per cc. My theory in using the vaccine is that in a disease which has a tendency toward chronicity and recurrences, it is desirable to increase the resistance of the patient to the causeative organism as much as possible. Certainly this can do no harm and may give the patient a more lasting protection than the use of the drug alone. —D. G. Mahle, M.D., Plainview, Minn.; Minn. Med., Vol. 25, No. 3, March, 1942.

The Japanese death rate is 17.4 per 1000 as compared to 10 or 11 in the United States. Japan's present death rate, in fact, resembles ours of 1900. Individual causes of death in Japan are about as prevalent now as in this country about 1900.

Treatment of Coronary Thrombosis

It is evident that the early stage, particularly the first ten days to two weeks, is the critical period of coronary thrombosis. Consequently, the protection of the heart in every way possible against the insult to the coronary circulation is of the utmost importance. The effectiveness with which this is accomplished may not only determine the immediate outcome but may have a deciding influence on the subsequent course.

The duration of bed rest is determined by the circumstances. A period of four to six weeks is ordinarily advised; however, with extensive heart damage it should be longer, and in some instances it may be advisable to extend it to three months or more. One should feel as certain as possible that the infarct has healed and that the maximum benefit has been derived from bed rest before the patient is allowed to be up and, particularly if he has been in bed for a long period, the legs and feet should be conditioned as much as possible by gentle massage.

The management of the patient after he is allowed out of bed is one of the most important aspects of the treatment. It is essential that the extension of the physical activities be carefully supervised. Thereafter it is a matter of regulating the habits of living so that the individual may live as far as possible within the limits of his cardiac disability. In order to attain this objective the patient must know the means of safeguarding himself. This necessarily means that he should know something of the nature and dangers of his condition. There is also the matter of mental adjustment. It is well known that many, particularly those in professions or in sedentary occupations, may resume their duties again. However, they should thoroughly appreciate the importance of adopting a slower pace, avoiding over-fatigue, getting plenty of relaxation and sleep, and maintaining a high level of general health.

This educational program may be carried out in easy stages during the period of convalescence. The patient will usually want to know his possibilities for the future. In many instances much of an encouraging nature may be said. At the same time it is possible to discuss many of the more important aspects of the condition without alarming the individual. A long period of convalescence is of great advantage in that it allows plenty of time for the subject to think over the situation and devise means of adjusting his future to his disability. Moreover, it permits many to become thoroughly rested for the first time in years. They again realize the meaning of this feeling and see the folly of needlessly allowing themselves to become overfatigued.—Fred M. Smith, M.D., Iowa City, Iowa; Jour. Ind. S.M.A., Vol. 35, No. 2, February, 1942.

An Infectious Syndrome Resembling Influenza

S. R. SALZMAN, M.D.

The Author

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SINCE the spring of 1940 there has been present, endemically, and also epidemically, an infectious disease, probably due to a virus, having some resemblance to the influenza infection; but having certain definite characteristics which allow it to be differentiated from influenza.

Clinically, the picture varies somewhat, and several types of the disease may be recognized: (1) The influenzal type; (2) The pulmonary type; (3) Neurologic group.

1. THE INFLUENZAL TYPE

This is the most frequent type. The onset is usually sudden, frequently without coryza, but slight sore throat is sometimes present, often not severe enough for the patient to mention unless specifically asked. Nasopharyngitis is common. The temperature in the sporadic cases is only slightly elevated, rarely being above 100.0 F., but in the epidemic types, temperatures at 102.0 F. to 103.0 F. are usual.

The temperature in the milder types is present from two to three days, but in the more severe types may persist for several weeks, or, after an afebrile period, during which time the patient still feels sick and exhausted, a recrudescence of the fever, even higher than during the first stage, may occur.

The symptoms of generalized infection; i.e., malaise or even marked exhaustion, backache and generalized aching are frequent. Headache has not been a dominant symptom. Neuromuscular pains are very prominent, and occasional soreness and even localized edema of some group muscles, especially of forearms and legs, is not rare.

After the acute phase of the infection subsides, the patient may have no pains, but complains of persistent fatigue. While he does not feel sick enough to stay at home, he finds it difficult to carry on his usual work without great exhaustion.

About one-third of these cases develop neuritic pains, and various degrees of severity occur. This is usually the symptom which brings the patient to the office. This type will be more fully described in the neurologic group.

The distinguishing diagnostic finding is the blood count. While in all cases of influenza the white blood count is normal or usually decreased, this group of cases all show a marked elevation in the white blood count. The count varies from 13,000 to 27,000. This is true even in those cases seen four to six weeks or longer, after the acute onset of the illness, and when the temperature is normal, and no localization of infection, such as pulmonary or pleural involvement can be found. There is a definite shift to the left, giving a high Shilling's index, and an increase in the monocyte count, with slight decrease in the lymphocytes. A detailed study of a few typical cases is given in the following chart:

DETAILS OF BLOOD PICTURE

Case	Total W.B.C	Stab	Poly	Lymph	Mono	Eos	Bas	Blast
B.H.	17,250	18	45	32	3	2		
F.C.	13,000	17	43	34	1	4		
D.G.	13,000	19	53	23	5			
Mrs.C.	13,000	28	42	20	8	2	1	
H.F.	20,000	13	64	15	7	1		
M.B.	20,000	18	45	26	9			2
J.U.	16,000	18	48	28	6			
A.L.	18,000	20	60	18	2			
Dr.E.K.	23,400	18	52	22	6	1	1	

A few typical cases are given in detail.

Case 1. H.F., a male, 34 years of age, a merchant. A few days being seen, he ached all over, had a fever and went to bed. He took some aspirin and hot drinks, and felt somewhat better, but was very exhausted. Had no sore throat. Examination revealed normal throat and sinus area. No neck rigidity. Temperature 100.0 F. Chest clear. Heart normal, regular rate, 76, and no murmurs. Abdomen negative. Rectum and prostate normal. Urine shows no albumin, no pus and negative for sugar. W.B.C. was 20,000. Differential count: neutrophils 77 per cent, polyneuclears 64 per cent, stab form 13 per cent, lymph 15 per ent, mono. 7 per cent, eos. 1 per cent.

Case 2. B.H., male 48 years of age, merchant. Seen 10/31/40. Gave history of "head cold" and sore throat five or six weeks ago. Throat was treated by a laryngologist and improved, but he has felt "lousy" ever since. He is too tired to put in a full day at work, and has shooting pains in neck, arms, and about the abdomen. Examination is essentially negative, except for tender points all along the spine, and along the intercostal nerves. Electrocardiogram shows interventricular block due to coronary occlusion four years ago, but no evidence of recent occlusion, and no signs of heart failure. Blood pressure 122/80. Urine negative for albumin, pus and sugar. Specific gravity 1022. W.B.C. 18,000. Differential count: neutrophils 63 per cent, polys 45 per cent, stab forms 18 per cent, lymph

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Submitted December 22, 1941.

32 per cent, mono. 3 per cent, eos. 2 per cent. On 11/4/40, after treatment he was feeling well, and able to go back to work. W.B.C. still elevated at 12,000. Treatment continued and on 11/8/40 blood count was 8,600. Recovery complete.

Case 3. Dr. S.P., male, physician, seen on 11/10/40. Had a slight cold several weeks ago. Has felt very tired since and had to force himself to keep going. Noted muscular pains and soreness all along back. W.B.C. 14,000. General physical examination negative. Treatment instituted and patient felt well the following day. No further complaints.

Case 4. C.M., female, 18 years of age, college student. Seen 12/20/40 because of severe, painful sore throat. Went to see physician in case three (3), who recognized the possibilities of the case belonging to this group and sent her to me for a white count. The throat was fiery red and granular. Temperature 98.8 F. General examination negative in every way. W.B.C. 20,000. Differential count: neutrophils 63 per cent, polys 45 per cent, lymph 26 per cent, mono. 9 per cent, eos. 2 per cent. Treatment instituted and the following day patient called by phone to say she felt well and the soreness was gone from the throat.

2. PULMONARY TYPE

This group resembles the influenzal group, except that there is evidence of pulmonary infection. Cough and expectoration is present and the examination of the chest shows fine crackling rales over both sides of the chest, giving the picture of a diffuse bronchiolitis. No definite areas of consolidation are present. The respirations are not greatly increased, and the dyspnea is not present. The patient is not very ill and there is no difficulty in ruling out pneumonia.

The sputum has no specific characteristics. Blood is not present in the sputum. Here again the white blood count is elevated, as in the influenzal groups.

3. NEUROLOGICAL GROUP

The third group is especially interesting, and until the picture is recognized, may give rise to difficulty in diagnosis and, in occasional instances, may easily lead to abdominal operations which are unnecessary. Indeed, from experiences related to me around the hospitals, I am certain that at least a few such operations have been done, and nothing found to account for the severe abdominal pains and high leucocyte count.

The neurologic picture varies considerably. Many mild cases are seen complaining of severe lancinating pains in various parts of the body. The neck and shoulder region are frequently involved; the intercostal areas, hips, and thighs are also common locations. The pains are very severe but momentary in character. They come in paroxysms throughout the day. The skin over the involved area is always hyperesthetic. Herpes is rarely present.

These cases usually give the typical history of the acute phase of the infection, some weeks before seeking medical advice. The onset of the neuritic pains can be traced back to a week or ten days after the onset of the infection.

The more severe types are distinguished by very severe neuromuscular pains, and soreness and tenderness of the involved region. Muscle spasm is marked. The neck may be rigid. Babinski or Kernig's sign is present on one or both sides. When the neuromuscular group involved is in the abdominal region, the diagnosis of ruptured abdominal viscus, or acute appendicitis may easily be made and operation undertaken. This may be more clearly illustrated by a case report.

Case 1. A.L., 24 years old, salesman, was first seen at the office after a morning's work. Was seen August 17, 1940. He had been feeling badly for about a week, having had a mild "cold", and felt tired with aching back muscles, painful on motion. During the morning of August 17, while bending over to pull a shoe box along the floor, pain along the right side of the back became very severe, and he found it was difficult to straighten up or to turn his body, without severe pain in the back and across the upper abdomen. When seen later in the day he had no temperature and only soreness along the muscles of the mid-dorsal region was noted.

The abdominal muscles were very rigid and tender, and Kernig's sign and Babinski were positive on the right side. The slightest movement resulted in severe shooting pains along the back and into the epigastrium and lower chest. Temperature was normal. He was sent into St. Vincent's Hospital. The extreme rigidity of the abdominal muscles, together with a leucocyte count of 18,000 and 80 per cent polyneuclear led the intern to make a diagnosis of ruptured gastric ulcer.

Spinal puncture was done. The fluid was clear and under slightly increased pressure, 160 mm. water, cell count 5, total protein 58 mgm. per 100 cc., gold curve normal, and Wasserman and Kahn negative. The removal of 15 cc. of spinal fluid gave considerable relief from the rigid neck and the pain along the spine and upper abdomen. A second spinal puncture was done on August 21, because of increase in neck and spinal pain. The fluid again was clear, pressure 150 water, cell count 5, total protein 57 mgm. per cent.

Following the second puncture the patient's condition improved steadily, and he was able to leave the hospital on August 29. He has remained well. On August 22, the white blood count had returned to normal, 7800, with 62 per cent polyneuclears. During his stay at the hospital the highest temperature recorded was 98.8 F.; pulse rate varied from 112 to 70 per minute, and respiration from 16 to 28 per minute. Urine showed specific gravity varying from 1018 to 1022, and did not contain either albumin, sugar, or pus cells.

Two other cases were seen within a six-week period, with essentially similar findings. Vertigo was a prominent symptom in one of these cases, and was relieved following the removal of 10 cc. of spinal fluid. The cell counts in the spinal fluid in each of these two cases was 3, and the total protein 47, and 66 mgms. per cent, respectively.

The albumin-cytologic dissociation present in these cases was not so marked as in Acute

Polyradiculoneuritis (Guillain-Barré Syndrome), and lacked all of the motor phenomena found in this condition.

TREATMENT

The results of treatment of this syndrome has been quite satisfactory. This very fact seems to cast some doubt on the nature of the infection. My impression is that we are dealing with a virus infection. Yet despite the fact that the sulfonamides have, so far, not been found to be of value in the known virus diseases, they have been almost specific in their results in this group of cases.

The treatment in all cases until recently, was carried out with sulfathiozole. My practice has been to give 1 gm. repeated in one hour, then 1 gm. every four hours for 24 hours, then 1 gm. every six hours. The patient usually felt well at the end of 24 hours, and the treatment stopped after 72 hours. The blood count in the cases checked, was usually normal at the end of 48 to 72 hours.

In recent cases sulfadiazine, in similar doses has been tried with equally satisfactory results. In the severe neurologic group, sulfathiozole was less effective and sulfadiazine has not yet been given a trial.

Thiamin chloride in dosage of 10-15 mgms., hypodermically, daily, was of considerable value for the neuritic and neuromuscular pains.

There has been no mortality, and no serious pulmonary complications in this series.

Because this new infectious syndrome revealed itself to me rather gradually, and all the cases were seen in general practice, it is impossible to give the exact number of cases seen, but it can be stated that not less than 30 cases were seen in the past 18 months. Not a few were seen during the summer and early fall when no influenza was present.

SUMMARY

A new infectious syndrome is described, having many of the general characteristics of influenza. It resembles influenza also in that it tends to produce, in addition to a picture of general systemic infection, both pulmonic and neurologic involvements.

The diagnostic characteristics are in the white blood count, which shows a definite elevation during all stages of the disease. The white blood count varies from 13,000 to 27,000, even in afebrile cases.

Sulfathiozole and sulfadiazine have been of considerable value in the treatment.

Parkwood at Monroe.

Since this paper was submitted for publication, the disease has appeared in epidemic form, with the gastro-intestinal tract showing the greatest involvement. The symptoms vary considerably; nausea alone may occur, nausea and vomiting with or without diarrhea, diarrhea without neausa or vomiting are most common.

Pain is the most distressing symptom and is often of great severity and occurs with any of the above combination of symptoms. Acute abdominal emergency leading to surgery is often diagnosed and I saw one case with the Abbott-Miller drainage being applied, the diagnosis of intestinal obstruction having been made.

The blood picture is the same as in the other types, and response to sulfathiazole is very prompt.—S. R. Salzman, M.D.

Circulation Time and Venous Pressure

The practical value of determining the circulation time is its great aid in the differential diagnosis of heart failure. The test is so simple a procedure that it requires no laboratory nor any equipment other than a syringe. The procedure can be carried out as efficiently in the home or office as in the hospital.

The circulation time is prolonged in most patients with symptoms due to heart failure. If failure is limited to the left side of the heart, there will be a prolonged saccharin time but a normal ether time, showing that the failure is limited to retardation of blood flow through the pulmonary circuit in the venous half (capillaries to the left side of the heart). This occurs only at an early stage of failure of the left side of the heart. Increasing back pressure along the venous half of the pulmonary circuit from the failing left ventricle results in more marked engorgement. Ultimately, this is transmitted to the arterial half of the lesser circuit and then the ether time is prolonged as well. The hypertension produced in the lesser circulation is an important factor in the pathogenesis of dyspnea in left heart failure. When the right heart weakens, pressure in the pulmonary circuit falls with relief of dyspnea and orthopnea. The circulation time is further prolonged, however, by the addition of right-sided failure to the preëxistant left heart failure; i.e., both saccharin time and ether time are prolonged with resultant greatly increased circulation time. Left ventricular failure leads to prolonged arm-to-tongue time, while right ventricular failure increases the arm-to-lung time.

In dyspnea due to obesity, bronchial asthma, compression of the trachea or bronchi by aneurysm or mediastinal tumor, the circulation time is normal. In pneumonia, pneumothorax or emphysema uncomplicated with heart failure, the circulation time is normal.

In the presence of pitting edema, circulation time is prolonged only if due to right heart failure. Edema of renal origin and ascites of hepatic cause yield a normal circulation time.

In thyrotoxicosis, circulation time is very short, whereas, in contrast, myxedema yields a prolonged reading. Fever and anemia may accelerate circulation time and thus tend to mask slight degrees of heart failure.—Edward C. Klein, Jr., M.D., Newark, N.J.; Jour. Med. Soc. of N.J., Vol. 39, No 3, March, 1942.

Atypical Thromboses of Peripheral Veins

LAWRENCE N. ATLAS, M.D.

PERIPHERAL venous thrombosis and thrombophlebitis are most frequently encountered as sequelae or complications of operations, parturition, varices, chronic debilitating illness, severe febrile conditions, and Buerger's disease. Their occurrence in an active healthy adult for no apparent reason, or as the result of an injury is more unusual. However, certain atypical forms of peripheral venous thrombosis and thrombophlebitis do occur under such circumstances; and because of the untoward sequelae to which they may give rise it is important that they be recognized at the earliest possible moment so that proper therapy may be instituted and an adequate prognosis offered.

PRIMARY IDIOPATHIC THROMBOPHLEBITIS

This rare condition has been described by Barker[1]. For no apparent reason, an active, healthy person is suddenly incapacitated by an acute thrombophlebitis which involves the femoro-iliac vein and is clinically indistinguishable from phlegmasia alba dolens. After the acute process has subsided the individual is left with a so-called milk leg. The following case is illustrative.

D.S., C.C.H. No. 177397, came under observation August 6, 1937. Six weeks previously, while sitting on the railing of her porch, she became conscious of a vague discomfort in her left groin and thigh. By the following morning the entire left lower extremity had become markedly swollen. She was feverish for several weeks and the swelling became progressively severe. There was no history of any antecedent illness such as influenza, tonsillitis, etc.

Examination: White female, age 13. The entire left lower extremity from hip to ankle was very edematous and hot to the touch. It resembled a chronic milk leg. There was no disturbance of arterial circulation. The patient was submitted to every conceivable type of investigation in an attempt to determine the etiology of the thrombophlebitic process, but none could be found. During the following four years she was treated with prolonged periods of bed rest, elevation of the limb, hot baths, elastic support, and mercurial diuretics. There has been some diminution in the size of the limb.

EFFORT THROMBOSIS OF THE AXILLARY VEIN

As the result of muscular exertion or strain, particularly with the arm abducted, an axillary vein may suddenly thrombose. For an excellent study of this clinical entity the reader is referred to the writings of Lowenstein[2], Gould and Patey[3], and Veal[4]. With bed rest, elevation of the arm, and heat a collateral venous circulation rapidly develops and the edema subsides with no permanent after effects except for rare instances in which the thrombosed vein gives rise to a chronic reflex vasomotor disturbance. Should this occur, resection of the thrombosed venous segment is indicated. The following case is fairly typical and is particularly interesting because the thrombosis occurred during sleep.

S.W.R. came under observation October 7, 1941. Two days previously, on awakening from a very restless sleep, she found that her right arm was swollen from the shoulder to the hand. The arm felt weak and heavy.

Examination: White female, age 39. There was considerable edema of the entire right upper extremity. There was no disturbance in arterial circulation. The superficial veins in the region of the shoulder and the upper anterior thorax were prominently dilated. There was tenderness to deep pressure over the course of the axillary vein. A chest plate revealed no intrathoracic disease or cervical ribs. There was no abnormal enlargement of the liver, spleen, or lymph nodes, and laboratory tests revealed no evidence of a blood dyscrasia. A venogram of the right axillary region was taken by injecting diodrast into the cephalic vein at the region of the elbow. The brachial and cephalic veins were well visualized up to the points where they normally enter the axillary vein. However, the axillary vein was not visualized, but the x-ray showed striking retrograde flow in the subscapular and thoracoacromial veins. The patient made an excellent physical and anatomical recovery with two weeks of bed rest, elevation and local heat.

SPONTANEOUS THROMBOSIS OF THE FEMORAL VEIN

This is probably the most unusual of any of the forms of acute peripheral phlebo-thrombosis attacking active, healthy adults. Trauma or strain may or may not be a precipitating factor. The acute thrombotic process which involves the common femoral vein often gives rise to arterial spasm of such severity that an acute closure of a principal artery may be simulated. In fact, instances of gangrene of the foot as the result of

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such vasospasm have been reported. A considerable amount of swelling of the leg and foot persists after the patient becomes ambulatory. Should a chronic vasomotor disturbance ensue, a lumbar sympathectomy or repeated procaine injections of the lumbar sympathetic trunk will give relief. The following case is fairly typical.

J.K. came under observation July 6, 1941. The evening before he had been suddenly seized with severe pain in the right groin accompanied by coldness and numbness of the right foot. The entire extremity became swollen and the foot turned blue. There was no history of trauma, strain, or antecedent illness or infection.

Examination: White male, age 45. He was afebrile. The entire right lower extremity was intensely swollen but not superficially edematous. The common femoral vein was tender to palpation where it passed over the pubic ramus. The foot was intensely cyanotic, cold to the touch, and pulseless. No cause for the thrombosis could be found. The intravenous administration of papaverine hydrochloride successfully relaxed the arterial spasm. Within 48 hours the foot became pink and warm, pulsation returned to the dorsalis pedis and posterior tibial arteries, and sensations of coldness and numbness disappeared. He remained in bed with his leg elevated for several months during which time he received heparin and mercurial diuretics. However, he has been left with a permanent high venous block and the leg and foot swell with activity.

TRAUMATIC THROMBOSIS OF THE DEEP VEINS OF THE CALF

This vicious syndrome has been most thoroughly studied and described by Homans[5]. A thrombotic process starting in the deep veins of the muscles of the calf gives rise to a long propagating thrombus within the popliteal and femoral veins. Should the thrombus become detached, and Homans has reported proved instances of such a mishap, fatal pulmonary embolism may ensue. The condition is vicious because it gives rise to so few symptoms or signs. A person receives an injury to the leg and within a few days or weeks notices some edema of the ankle accompanied by some discomfort in the calf. If he goes to bed, symptoms rapidly subside; but when he becomes ambulatory they recur. On examination there is some edema about the ankle accompanied by slight cyanosis and coldness and hyperhidrosis of the foot. The pathognomic sign described by Homans is tenderness to deep pressure over the upper calf and behind the knee accompanied by pain in these regions with forced dorsi-flexion of the foot. Treatment is ligation of the superficial femoral vein just distal to the profunda. Following operation, symptoms rapidly subside. Ligation of the femoral vein at this point does not give rise to any permanent residual edema.

C.S., C.C.H. No. 240432, was seen in consultation with the medical service February 15, 1942. On January 3, 1942, he was hit in the left leg with a bowling ball. The contused area turned blue and remained painful until January 18, 1942, when he was suddenly seized with severe pain in his right lower chest and flank followed by fever, cough, and bloody sputum. On admission a chest plate revealed consolidation of the base of the right lung with fluid. Twelve days later while recuperating from this first attack he was again seized with acute chest pain, this time on the left side. Another chest plate showed a wedge shaped shadow at the left pulmonic base characteristic of a pulmonary infarct.

Examination: White male, age 33. The left foot was cooler than the right and slightly cyanotic. Arterial pulses were present throughout. There was edema about the left ankle and the superficial veins were distended. There was exquisite tenderness to pressure over the popliteal and superficial femoral veins, and Homan's sign was strongly positive. A diagnosis of traumatic thrombosis of the deep veins of the left calf with extension of the thrombotic process into the femoral system with subsequent repeated pulmonary embolism was made.

Operation was performed at once. Under local anesthesia the proximal four inches of the femoral vein was exposed so as to reveal the points of entrance of the saphenous and deep femoral veins. These latter tributaries were distended with fluid blood. The femoral vein was opened just distal to the entrance of the profunda. It contained a thrombus which was not adherent to the venous wall. The thrombotic tissue was sucked out of the proximal portion of the femoral vein. Following this maneuver there was a gush of blood and the previously distended saphenous and deep femoral veins collapsed. The femoral vein was divided between ligatures just distal to the point of entrance of the profunda. Following ligation the profunda and saphenous veins remained collapsed indicating that the femoral obstruction had been removed. Following operation there was a rapid disappearance of pain, tenderness, and edema. There has been no recurrence of pulmonary infarction.

Recent investigation[6 7], indicates that postoperative and postpartum pulmonary embolism has its origin in the majority of instances in a pathological process precisely similar to that just described. Daily examination of the legs for evidence of a thrombotic process in the deep veins of the calf should be routine in all postoperative and postpartum cases; and particularly so if there is a persistent low grade unexplained fever or if the patient has already had a non-fatal pulmonary embolus.

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Treatment of Ringworm of the Feet

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RINGWORM of the feet is an infection with one of several fungi, usually occurring between the toes or on the soles of the feet. Epidermophytosis is a more frequently used term for this type of infection and tinea pedis is also a satisfactory name, but not in general usage. A little knowledge of the fungi causing this infection will often help in its management. Epidermophyton interdigitale, E. inguinale, Trichophyton gypseum and T. purpureum organisms are the common causative agents. Monilia organisms may at times cause inflammation in this area, but this type of infection is not usually included with the previously mentioned ones and consequently will not be considered here. These causative organisms are heat sensitive and are destroyed at temperatures around 104° F. Heat is not generally used in treatment, but theoretically does offer possibilities.

The organisms thrive in moist warm areas, hence dryness is inimical to their growth. Anything that will decrease pedal sweating or dry the skin of these areas will inhibit the growth of these organisms.

DIAGNOSIS

By no means, are all vesicular eruptions of the feet ringworm. Its frequency does call it immediately to mind when vesicles are seen in this area, but mistakes are easily made. Vesicular contact dermatitis, pompholyx, eczematoid dermatitis of Engman, palmar psoriasis and recalcitant pustular eruption of the palms and soles are a few confusing conditions occurring here. It is obvious that the correct diagnosis precludes successful therapy. Examination of scales for fungi is the most certain way to be sure. Simple immersion of the scales in 20 to 30 per cent KOH for half to one hour will usually demonstrate the fungi. Gentle heating of the slide will hasten the solution of keratin and hence soften the skin. The bottom surface of the roof of a vesicle is a good place to look. This procedure is often neglected in suspected cases of epidermophytosis and is a very simple and easily conducted examination. Of course it is not infallible as one must be careful not to be confused by the "mosaic fungus" which is probably crystalline deposits between the epidermal cells. The hyphae show up readily as regular, branching, tubular structures.

Prophylaxis is important, but in many, becomes the source of great worry. It seems that some individuals never develop the infection, no matter how often they are exposed, while others very readily contract it, in spite of all precautions. There is evidence that the organisms may lie dormant in the skin for some time and this may account for some of the apparently unexplainable infections. Those with flat feet, hyperidrosis and in occupations causing the feet to be wet are predisposed. Drying powders with various antiseptics are of value in prophylaxis Aerated shoes also help allow evaporation of the moisture and possibly antisepticized hose may be of value. Tanks of sodium hydrochloride solution (0.5 to 1 per cent) have been used in which to soak the feet before entering public showers, etc. While of value, they are not as successful as had been hoped. The solution must be made fresh each day, and individuals forced to stand in the solution for about one or two minutes. Those who frequently contract the infection may do well to apply one of the fungicidal agents once or twice a week even when no sign of infection can be seen. This is best done after bathing. Thorough drying is also important. A powder containing 1-2 per cent thymol serves well for this purpose.

Involvement of the nails occurs rather frequently and is most distressing. It is a very difficult site to treat the infection and often persists after areas of infection on the skin have been clear. It may become a feeding source of organisms to the skin. Nails grow very slowly, taking four to six months for their complete growth. Diseased nails are distorted, hyperkeratotic, and a yellowish white color. As much of the nail is removed as possible before any treatment. A drill may help to accomplish this. Local applications of fungicidal agents as for example thymol or iodine in some fat solvent may be of value. X-ray, in broken doses, is very valuable, but all forms of treatment are slow and tiring to both patient and physician. Surgical removal of the nail and then the application of fungicidal agents to the nail bed as it regrows, at times, is valuable, but even then the infection may recur. It may be worthy of trial, however. Many other nail deformities resemble onychomycosis and one should be certain of the diagnosis by finding the organisms before one uses any such drastic procedure.

TREATMENT OF THE INFECTION

Actual treatment of the infection of the skin can best be divided into (1) topical applications, (2) physical methods and (3) biologic methods.

Topical applications will vary with the acute-

Dr. Kile was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

ness of the infection. Secondary invasion with pyogenic organisms is very prone to occur and often the reaction which ensues is severe enough to destroy the fungus. This type of infection seems to readily develop lymphangitis and lymphadenitis. **All is often made worse by the application of some fungicidal agent at this stage.** We too often see these acutely inflamed and irritated cases due to too strong applications before a dermatologist is consulted. **Mild preparations of non-stimulating substances are to be applied until all signs of inflammation have subsided.** Too often the patient will treat himself even before any physician has seen him.

ERADICATION OF SECONDARY INFECTION

Measures toward eradication of secondary infection are essential before any thought need be given the fungus infection. Hot packs of aluminum acetate, boric acid, or a weak copper sulfate solution are often efficacious. Ammoniated mercury is used sparingly and rarely over a 3 per cent concentration in white vaseline. Adding 10 to 20 per cent zinc oxide to such an ointment enhances its antiseptic value as well as makes it more paste-like and thus takes up moisture that is usually present. Potassium permanganate may be used as wet packs, but as it stains and may confuse the appearance of the skin, it is seldom used by the author. X-ray therapy may be used at nearly any stage. Drying lotions are of value providing free drainage is allowed. They are best used just as the secondary infection is subsiding or in inflamed dysidrotic areas. Calamine lotion is seldom used by the author. It is satisfactory, but as the present day calamine is nothing more than crude zinc oxide, I prefer just a zinc oxide (20 per cent) lotion with glycerine in about 30 per cent, and 1 per cent phenol in water.

After the inflammation has subsided—and only then—should keratolytics be used. Full strength Whitfield's ointment is very rarely necessary, being used only on hyperkeratotic areas. Benzoic acid in 5 per cent strength with 3 per cent salicylic acid in white vaseline is of sufficient strength. The addition of 1 per cent thymol markedly increases the efficacy of this ointment. Thymol is one of the best fungicidal agents we have available, but more than 2 per cent or 3 per cent strength is often irritating. Another nice local application in the less acute phases is a lotion of 1-1000 bichloride of mercury, 3 per cent resorcin in ethyl alcohol. This causes a little burning in fissures, but is seldom irritating. Acetic acid in 3-10 per cent strength is a neglected fungicidal agent. A much more stimulating and rarely used preparation is pyrogallic acid. On very chronic patches it is valuable in 2-4 per cent strength, but darkens on oxidizing and causes some staining. Iodine is one of the most efficient fungicidal agents in vitro. In various fat solvents that help it to penetrate the skin, this chemical is one of the best.

Gentian violet, crystal violet and brilliant green restrain the growth of fungi, but are less active as fungicides than as bactericides. Another dye containing paint was described by and named after Castellani. It is a basic fuchsin, resorcin, boric acid mixture. There are many dermatologists who ardently advocate its use. It makes the skin a metallic red color and may be irritating at times. For this reason, I never use it. Other mercurials besides ammoniated mercury are used, but have been rather disappointing clinically. Phenyl mercuric nitrate was quite popular several years ago and still has many advocates. An ointment in 1-1500 dilution is the optimum strength to be effective and yet not irritate. Irritation does occur often enough, however, to classify it as one of the seldom used fungicides. Sulfathiazole solutions, locally applied, have been suggested by Dennie. Five and ten per cent solutions of sodium sulfathiazole in the test tube definitely inhibits the growth of the common pathogenic fungi that cause tinea infections except the monilia group. Discussers of a paper he recently presented before the Southern Medical Association believe it is valuable for the secondary coccic infections, but not for the fungi. Ointments of sulfathiozole applied locally are not as efficaceous as the solution according to Dennie. A further investigation of this chemical, in fungus infections is under way.

The number of remedies suggested indicates that no one outstanding preparation is available. One person may respond well to a drug while another responds poorly to it. The problem of penetration of the fungicidal agent may be more important than the agent used, which fact has accounted for the incorporation of fat solvents such as acetone, alcohol, or benzol in many of the formulae.

PHYSICAL AGENTS USED IN TREATMENT

Various physical agents are used in the treatment of epidermophytosis. Superficial X-ray, judicially used, not only decreases perspiration, but also seems to help the host ward off the infection. It can be used at any stage. Ultraviolet is probably of some value, but I have never been sure of it. Ionotophorisis of copper solutions into the skin was thought for a time to be helpful, but it is slowly being discarded, even by those who introduced it. Since the fungi responsible are destroyed by heat, hot baths for short periods are of value, providing thorough drying follows them, and the skin is not allowed to become too soggy and macerated. I have seen a few cases apparently benefited by freezing. The use of an ethyl chloride spray to the chronic patches deserves further investigation.

Biological methods of treatment are in less general use than a few years ago. Many eruptions over the body are referred to as "ide" eruptions, just because a fungus infection is present on the feet. Though such a reaction does definitely occur from many infections, it probably does not take place with epidermophytosis as often as we assume. Those with fungus infection on their feet probably have a lowered threshold of irritability of their skins and hence may develop contact dermatitis more easily. The presence of such a common condition as epidermophytosis certainly doesn't mean that the individual may not be suffering from another skin condition elsewhere on the body.

Extracts of the organisms are prepared and used for skin testing. While perhaps specific, we cannot assume an eruption due to absorption of fungi or their products because of a positive skin test to them. Furthermore, treatment with these extracts has proved very disappointing, at least in my experience.

This brief survey of ringworm of the feet is not intended to be complete. This has been done more thoroughly many times before by others. It is merely some observations that may be pertinent to the problem.

In summary one can say that ringworm of the feet is curable. Some individuals furnish a more fertile soil for the growth of the universally present organisms. No stimulating or keratolytic agents are to be used until all acute inflammatory signs have disappeared and then only slowly begun. Their occasional use by individuals, susceptible to ringworm of the feet, is not difficult and often may be an efficient means of preventing recurrences.

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Gastric Cancer

The early diagnosis and prompt treatment of gastric cancer furnish the only hope for lowering the steadily increasing mortality rate in this disease. Cancer of the stomach is now one of the most frequent causes of death, and each year more than 55,000 persons in the United States alone die from this condition. There are even more deaths from cancer of the stomach than of any other single organ in the body. Is it any wonder then that gastric cancer demands our most earnest consideration?

So far as we know from our observation of other parts of the body, cancer never springs directly from normal tissue, and if this is true elsewhere we may reasonably hold it to be true of cancer of the stomach. It is to be expected that a chronic, irritating lesion of the stomach such as a peptic ulcer may develop into cancer. And still, on the other hand, Dr. Margaret Warwick has shown that in a series of 176 cases of gastric cancer only 55 per cent of these lesions are ulcerated. From this we are sure that not all gastric cancers arise from ulcers, nor even as high a percentage as 50 per cent, as maintained by some, but possibly 20 per cent to 25 per cent which is now the usually accepted figure.

If an early diagnosis is to be made, the first and apparently trivial symptoms, especially in those over 35 years of age, must be recognized. Any irregularity referable to the gastro-intestinal system should be adequately investigated and not merely called indigestion and neglected. A most important fact to bear in mind is that the symptoms of gastric cancer are not typical. It is essential to get away from the textbook picture of gastric cancer. If we wait for such signs and symptoms as cachexia, palpable mass in the epigastrium, anemia, hematemesis, and enlarged Virchow glands, no operation or treatment will be of any value.—Guy W. Horsley, M.D., Richmond, Va.; Va. Med. Monthly, Vol. 69, No. 3, March, 1942.

Diseases of Accessory Nasal Sinuses

The discovery, in recent years, of nasal allergy has thrown much light on diseases of the accessory sinuses and has explained many of our failures in the past. It is estimated that about 25 per cent of the patients in ordinary rhinologic practice have in them some element of allergy, a fact we are just beginning to appreciate.

For years nasal allergy paraded under a long list of pseudonyms, hyperesthetic rhinitis, spasmodic rhinorrhea, rhinitis nervosa. We recognize them today as allergic rhinitis. One of the most frequent and baffling types of case in years gone by has been that of nasal polyposis, constantly recurring despite repeated operation. Today we realize that its cure depends, not on surgery, but on the discovery of the offending allergens. True, polypi may result from nasal infection, but such polypi are much more easily controlled by operation and have much less tendency to recur when the infection has been eradicated.

Allergy, of course, does not explain all nasal disease. Acute and chronic infection still take heavy toll of the accessory sinuses and are still amenable, in most cases, to surgical treatment. But we now realize that an uncontrolled allergy will probably vitiate surgical treatment of the sinuses, treatment which should not be undertaken till the allergic factors have been eradicated so far as possible. Naturally, one would not hesitate to initiate surgical treatment in the allergic patient, in cases of acute infection with retention, orbital abscess, or osteomyelitis. Minor procedures, such as removal of obstructing polypi or resection of deflected obstructing septæ, may also be properly done with good result in allergic cases. Our knowledge of allergy has greatly clarified surgical indications but it has not rendered sinus surgery obsolete.—Charles E. Connor, M.D., St. Paul; Minnesota Med., Vol. 25, No. 2, February, 1942.

Sulfaguanidine in Diarrheas of Infants and Children

I. A. SIVON, M.D., SYDNEY WISE, M.D. AND E. H. BAXTER, M.D.

OF the newer sulfonamide drugs, sulfaguanidine is of special interest because of its unique property of being soluble in water and yet poorly absorbed from the intestinal tract. This quality led to the speculation of its use in bacterial enteritis where a high concentration of the drug could be maintained in the intestinal tract with a low concentration in the blood and tissues.

In studying the pharmalogical action of the drug in animals, Marshall et al[1] found sulfaguanidine in therapeutic doses, to be insufficiently absorbed from the gastrointestinal tract to detect any acute toxicity. Chronic toxicity was found mainly to be limited to the kidneys. The damage, which was due to the deposition of acetylsulfaguanidine, consisted of dilation of the tubules, hydropic changes, necrosis of the epithelium, and crystalline deposits, with occasional red blood cells in the tubules.

Toxity to the drug in man is infrequent, however, rather commonly sulfaguanidine may crystalize in the urine, and occasionally when a high percentage of acetylsulfaguanidine is excreted, gross hematuria may result.

In the preliminary studies carried on at Johns Hopkins, it was found that when doses of 0.05-0.1 grams per kilogram were given every four hours to children the blood levels ranged from 2.26-2.81 mg. per cent. Further, in a report of a series of 172 cases, it was found that the majority of blood levels was under 3.9 mg. per cent free drug concentration, whereas stool concentrations ranged from 150-250 mg. per cent.

In a group of four well children, given sulfaguanidine for five days, in dosages ranging from 0.05-1.0 grams per kilogram every 24 hours, the daily blood concentrations ranged between 0.5 to 1.25 mg. per cent, with an average of 0.895 mg. per cent and stool cultures ranged from 100-400 mg. per cent, with an average of 186 mg. per cent. Occasional sulfaguanidine crystals were found in the urine of each of the four children, after the third day of treatment; no red cells were observed. There was no appreciable change in the daily blood counts.

In 1940, Marshall et al.[2] published the first report of the use of sulfaguanidine in acute bacillary dysentery. In 17 cases, proved by stool culture, 10 showed marked improvement, slow improvement in six and none in one case. In four cases the diarrhea was checked and the temperature became normal in 24 hours. Optimum results were obtained when the drug was started in the first three days of illness, whereas irregular and less favorable results were obtained when the drug was started later.

Lyon[3,4], in West Virginia, observed a series of 46 patients with bacillary dysentery, treating 23 cases with sulfaguanidine and 23 without the drug. In being selected for this series, each patient was required to have (A) a bloody diarrhea, (B) a temperature not less than 102 F, (C) and be admitted before the end of the first week of the diarrhea. General treatment of both groups consisted of the usual supportive measures. The drug was given so as to provide 0.1 gram per kilogram of body weight as the initial dose, and 0.05 gram per kilogram of body weight every four hours for the maintenance dose.

The usual course of dysentery was observed in the control group: fever, tenesmus, and bloody stools the first week; lower temperature, continuation of diarrhea, and loss of weight and strength the second week; and a tendency toward convalescence the third week.

In the group of 23 treated with sulfaguanidine, 18 showed a marked fall in temperature, improvement in the number and consistency of the stools, and an improved clinical picture, within 24-72 hours. The remaining five cases did not seem to be influenced by the drug.

From May to October of 1941 there were 117 cases of diarrhea treated at this hospital. Of these, 49 received sulfaguanidine, in dosages ranging from 0.2 to 0.4 grams per kilogram in

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24 hours. All patients admitted with a history of severe or sudden diarrhea, with a high fever, toxemia, and bloody stools, were started on sulfaguanidine. Among these patients there were 21 cases of bacillary dysentery, proved by stool culture. Seven other patients were found to have dysentery, by culture, after several days of hospitalization, and these patients were not given sulfaguanidine.

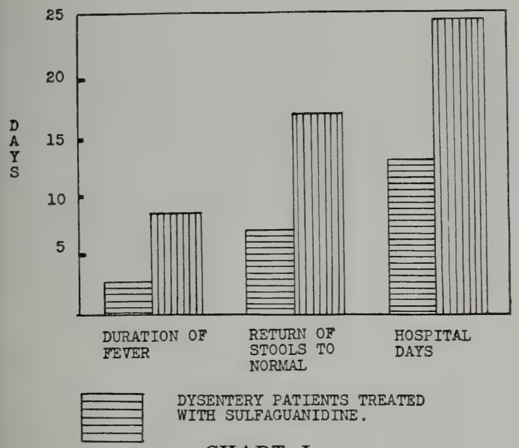

CHART I

All patients were given similar supportive and symptomatic care, consisting of: fluids subcutaneously and intravenously, transfusions, and correction of acidosis by intravenous sodium bicarbonate, as indicated. All patients were preliminarily starved for 12 to 36 hours, and then given dilute small feedings of protein or skim milk.

During the same summer months, May to October, of 1940, there were 17 cases of bacillary dystenery hospitalized. This group has been included with the seven cases in 1941 which did not receive sulfaguanidine.

Of the 21 receiving the drug, the stools were normal (less than four in 24 hours, and of normal color and consistency) in 7.1 days, whereas in those not on specific therapy the average time required for the return to normal stools was 16.9 days. The average hospital stay for those on sulfaguanidine was 12.9 days, and 24.25 days for those not on the drug.

In those receiving sulfaguanidine, the average duration of temperature over 100 deg., was 2.6 days and those not receiving the drug averaged 8.4 days.

In the 24 cases not treated with sulfaguanidine, there were six deaths, whereas there was only one death in the group of 21 treated with the drug.

Hospitalization was continued until a normal feeding regime had been re-established and until the patient was showing a satisfactory weight gain.

The best results were obtained when sulfaguanidine therapy was instituted within the first four days of illness. In these patients the stools generally were normal in two to five days, and the temperature had returned to normal within 24 to 48 hours in the majority of cases. Sulfaguanidine was administered for 5.5 days, as an average.

From the two patients who showed the poorest response to the drug, and from the one death occurring in this group, the Strong organism was cultured; and these were the only patients from whom this organism was obtained.

From May until October of 1941 there were 49 patients with non-infectious diarrhea who received sulfaguanidine, and 68 similar patients who did not receive the drug. In the group given sulfaguanidine the stools had returned to normal in one-half the time required for the group not receiving it; the number of hospital days was correspondingly shortened by approximately 50 per cent in the group receiving the drug as compared with the latter group.

CONCLUSION

Twenty-one cases of bacillary dysentery were treated with sulfaguanidine. The average duration of fever in this group was 2.6 days as compared with 8.4 days in a group of 24 patients not given the drug; the duration of the diarrhea stools averaged 7.1 days in the treated group and 16.9 days in those not treated.

The average hospital stay was 12.9 days in those receiving sulfaguanidine and 24.25 in the untreated group.

Sulfaguanidine is of value in the treatment of bacillary dysentery.

Sulfaguanidine may prove of value in the treatment of non-infectious diarrhea. Further observation is necessary.

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We must recognize the fact that tuberculosis begins in the human body when the tubercle bacillus is first lodged in the tissues and that whatever occurs subsequent to this is largely beyond our control. The disease may be interrupted permanently by the body's defense mechanism soon after it begins; it may be interrupted temporarily on numerous occasions but eventually may reach its ultimate goal by destroying parts or even the life of the body.—J. A. Myers, M.D., Ann'l Meeting, Nat'l. Tuber. Assn., 1940.

Heparin Therapy in Thrombosis of the Central Vein of the Retina

LOUIS A. LEVISON, M.D. AND JOHN L. ROBERTS, M.D.

THE unsatisfactory status of therapy in thrombosis of the central vein of the retina is well recognized. Any new method of treatment which offers a possibility of restoring vision in such cases should be carefully considered. Previously, therapy has included attempts to hasten the absorption of the retinal hemorrhages by irradiation of the eye, potassium iodide, and the general measures employed in the control of the hypertensive cardiovascular disease which is almost invariably present. Occasional cases of spontaneous recovery in instances of central vein thrombosis in younger persons have been observed. The clinical differentiation between a thrombosis and obliterating endophlebitis or phlebosclerosis is probably very difficult or impossible.

Case 1—J.W.L., age 70, retired railroad worker. This man was first seen by one of us (J.R.) May 8, 1941. Vision in the right eye had been suddenly impaired and examination showed an occlusion of the central vein of the retina. There was widespread hemorrhage throughout the entire retina. The macula was somewhat spared. Vision was 20/60 haltingly. He stated that he saw odd or peculiar colors with the affected eye from the outset. The previous history was irrevelant. The general examination showed marked general arteriosclerosis. Blood pressure was 170/90. The Wassermann was negative and the other laboratory data negative.

He was admitted to St. Vincent's Hospital and the administration of heparin started June 2. This was five days following the onset of eye symptoms. Bed rest was maintained, but no untoward symptoms appeared throughout the treatment. Heparin, 100 mgs. in 10 cc. solution was given by the syringe method every four hours, four times daily. The clotting time was determined in the interval between injections about every four hours or as needed. These determinations showed a variable level of clotting time, usually between nine and forty minutes by the capillary tube method using capillary blood. The heparinization was continued from June 2 to June 6, inclusive. The injections were given slowly over a ten-minute period.

The patient stated that his vision was definitely improved on the fifth day and thereafter. The hemorrhagic appearance of the fundus improved in a striking way. The fundus appeared normal on September 26, 1941, with the exception of a slightly black peppered appearance. The vision on this date was 20/40 in the affected eye.

He carried on normally thereafter, having no trouble getting about or reading. However, a sudden coronary occlusion was fatal in the first week of November, 1941, six months after the above therapy.

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Case 2—Mrs. E. B., age 72, housewife. This patient was seen with Dr. Leonard Nippe who had determined the vision in the left eye to be 20/20-2 in April, 1941. She had been observed for some years by her family physicians, Doctors Byron Shaffer and Thad Taylor, through a succession of cardiovascular episodes. This included a left side hemiplegia five years before, possibly from a cerebral thrombosis. Two years before, there was a thrombosis of the vessels of the right eye with complete and permanent loss of vision on this side. A thyroidectomy has been done ten years ago. So-called heart disease had continued following this operation and the blood pressure was known to be very high for a number of years.

The vision on the left side had gradually diminished over a six-week period prior to October 7, 1941, when she entered Toledo Hospital. However, the vision had become suddenly much worse one week before admission. It can not be stated whether thrombosis of the tributaries of the central vein had appeared during this six-week period, but complete left side occlusion of the central vein appeared in the final week. She was not observed by any ophthalmologist prior to this latter week during the period of failing vision. It is probable that her hospital admission was on the seventh day following the complete occlusion.

Examination showed an elderly person with an extreme degree of arteriosclerosis. All accessible arteries were hard, beaded, tortuous, and visibly pulsating. The blood pressure was 240/140. Complete recovery of the previous left side hemiplegia had not occurred. There was muscular weakness, trophic changes, impairment of use and function, numbness and much discomfort. The cardiac condition was not good. There was marked enlargement to the left, impairment of the muscular tone, a fairly loud systolic murmur over the apex and base on each side, and marked pulsation in the right supra-clavicular area. There was no edema. The extremities were dull blue-red in color. There was extensive hemorrhages in the left retina. Left side vision was bad and the fingers before this eye could not be counted or distinguished.

Laboratory examinations showed a normal

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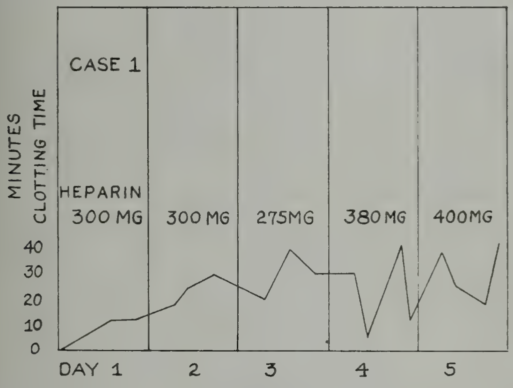
hemogram, and a negative urine with the exception of a faint trace of albumin.

Heparin was started on admission to the hospital by the continuous intravenous drip method, 25 drops per minute. Effort was made to keep the blood clotting time between 15 and 20 minutes by the capillary tube method. The drip was maintained for 11 days. The highest clotting time attained was 54 minutes. There were no toxic manifestations. However, the general condition of the patient was not good. She was very nervous, apprehensive, ate poorly, restless, and in the final two days of treatment showed moderate mental disturbances, such as confusion. It was necessary to change the site of needle puncture from time to time on account of the above restlessness, and at one point a minor infection ensued which subsided with simple dressings in several days. No change in the blood pressure followed the two weeks bed rest. It remained 240/140.

The vision in the left eye did not improve or but slightly. The signs in the retina and fundus improved. The daily heparin administration varied from 200 to 400 mgs.

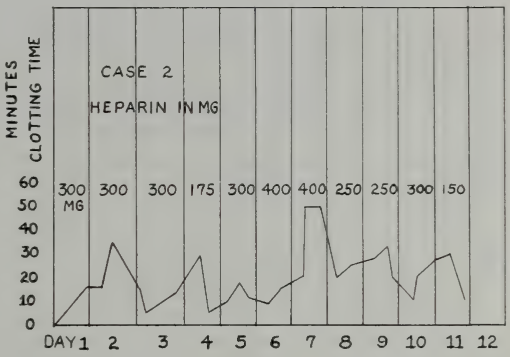
It is apparent that a good result in this case could not with certainty have been anticipated. Gradual failure of the left side vision had been going on for a period of five or six weeks. Only the final thrombotic manifestations of the last or sixth week might possibly have been ameliorated.

Since the original case report of Holmin and Plomin (1. Lancet, 1938, I: 664) there have been other reports with variable results. Many factors influence the end result and these vary widely in reported cases. Some of the case reports fail to give data essential to the strict evaluation of this method of therapy. It is apparent that the results will be much better if treatment is started on the first day of thrombosis. The closure may not be sudden and complete. It may have appeared gradually with abrupt final impairment of vision. Variations may be expected with the involvement of the several tributaries of the central vein or of the larger vessel. The degree of arteriosclerosis is an undoubted factor. If the clotting time is not maintained at an adequate level by proper laboratory methods, results will be poor.



Case No. 1

The ophthalmoscope permits constant supervision of the retinal picture. The findings are characteristic with the hemorrhages and the hemorrhagic deposits, the stasis around the papilla, and the tortuous swollen veins. Parsons, in his book, states that the obstruction in the central vein is immediately behind the lamina cribosa. It is probable the effects of heparin are not confined entirely to the main central vein thrombosis. As all the blood in the body is heparinized, it may be assumed that capillary hemorrhages and extravasations are more rapidly and completely absorbed.



Case No. 2

No review of the literature will be attempted as this has recently been done by Rea of London at the last Congress of the Ophthalmological Society of the United Kingdom. Lea has used this method in five cases in the past year, three with complete trunk thrombosis and two with thrombosis in the branches. His results were good in two patients, partly good in two, and showed failure in one with eventual glaucoma and blindness.

Further observations in this field are greatly to be desired with especial reference to the results in patients in whom treatment is not started on the first day.

CONCLUSIONS

1. Two cases of thrombosis of the central vein of the retina are reported with intravenous heparin administration.
2. Treatment was started in one case on the sixth day and maintained adequately with very excellent results.
3. Treatment in the second case was given late without any improvement.
4. It is probable that the clotting time should be maintained at a higher level in such late cases.

421 Michigan St.

We treat the fears as well as the ills of mankind.—Fetterman.

* * *

Judge a physician by his cures.—Paracelsus.

Phrenic Nerve Surgery in the Collapse Therapy of Pulmonary Tuberculosis

E. K. JOHNSON, M.D.

ABOUT 30 years ago the first phrenic nerve operation was performed as collapse therapy for pulmonary tuberculosis. Since then this procedure has gained in popularity until recently when a noticeable decrease has occurred. Cutler[1] said in 1939, "The likelihood today is not so much that too many phrenic nerve operations will be performed, or that they will be undertaken in an indiscriminate manner, but that the operation will be discarded". Undoubtedly this attitude is caused by the varied results of this type of collapse therapy.

In an effort to evaluate the phrenic nerve surgery in pulmonary tuberculosis, a series of 70 patients was analyzed. They consisted of 31 males and 39 females averaging 31 years of age. Sixty-five patients had definite cavities and five had "motheaten" rarifactions. All of these patients had consistently positive sputa with roentgenograms showing stationary or progressive lesions.

Considerable time had elapsed between the onset of their illness and the phrenic nerve operation; the longest being seven years, while the average was about three years. During this time a pneumothorax was attempted in most patients and all were encouraged to acquire good bed rest habits. However, no patient had enough improvement from his bed rest or pneumothorax to discount the beneficial effects of the phrenic nerve interruption.

The paralysis of the hemidiaphragm was determined by the "sniff" test, which is the swift ascension of that side during a sudden inspiration, as viewed fluoroscopically[2]. This method was used to determine the return of activity of the paralyzed hemidiaphragm, which in the "crush" group was in about nine months, while all those having an avulsion were permanently paralzed. The operation was performed 45 times as a phrenic nerve "crush". Two were unsuccessful, and later the nerve was avulsed, while two others developed a permanent paralysis. The remaining 41 patients had a successful temporary paralysis without incidient. Twenty-seven patients had an avulsion of the phrenic nerve with permanent paralysis of their hemidiaphragm.

The elevations of the paralyzed diaphragms were determined by measuring the distance from the transverse process of the seventh cervical vertebrae to the dome of the diaphragm[3]. All calculations were made on posterior-anterior roentgenograms taken during moderate inspiration, so the differences pre- and post-operatively were the approximate elevations. These findings revealed that four had no appreciable rise, one was elevated 6 cm., while the average ascended 3 cm. Three of the four patients without an appreciable elevation of the diaphragm had a phrenic "crush" while the fourth had an avulsion.

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At their discharge from the sanatorium fifteen had negative sputa with their cavities closed and the lesions cleared, but later two of them developed new lesions requiring additional collapse therapy. At the end of the observation period, which averaged 38 months per patient, four could not be traced, while the rest, or 94 per cent, were followed. Eight patients, that had been considered improved or better but not arrested, had closed their cavities, cleared the infiltrates and were sputa negative. These were added to the other cases and thus, of 66 known patients, 21 are alive and considered as arrested or better.

The reasons for this type of collapse therapy are shown in Chart I, with the number of patients and the percentage arrested.

These indications are similar to those advocated in different areas of this country[1,3,4,5,6]. Some stress the procedure in relation to the collapse therapy needed, while others are more concerned with the individual lesions. This makes the ideal indications difficult as a combination of factors are present.

When the ideal indications are adhered to, the number of patients eligible to receive phrenic nerve surgery is decreased, but also the percentage of successful results is increased. Potter, Berry and Bortone[5] in 1937 showed that in 68 patients receiving this type of collapse therapy as an independent procedure, it was contraindicated in 45 per cent. Their contraindications were: huge cavities, thick walled cavities and cavities embedded in a fibrous infiltrate, peripherally located adherent cavities, lesions within a lung surrounded by a thick pleura and multiple cavities. The operation was indicated in 38 or 55 per cent of the group with 47 per cent

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success. A similar report by Cutler[1] appeared in 1939 regarding 101 patients who had phrenic nerve interruptions as an independent procedure.

The results can be considered under two headings; as an independent procedure, or as an accessory measure which includes those in combination with other collapse therapies and the various miscellaneous uses.

CHART I

Reasons for phrenic nerve surgery	Number	Percentage arrested
Independent procedure	41	24
Complementary to ieffective pneumothorax	16	50
Supplementary to a relinquished pneumothorax	3	100
A preparatory stage to thoracoplasty in poor risk patients	9	0
Control of severe hemoptysis	1	0

As an independent measure, it was successful in 24 per cent of our cases. Similar reports, in large series of cases by O'Brien[9] of 66 per cent, Decker[6] 26 per cent, Nehil and Alexander[8] 38 per cent, Aufses[7] 23 per cent, Potter and Associates[5] 26 per cent, Miller and Shaffner[10] 46 per cent and Cutler[1] 16 per cent have appeared since 1930 in chronological order. These patients were considered cured, arrested or working, indicating the cavities were closed, the infiltrates cleared and the sputa negative for tuberculosis bacilli. The wide variances in the percentage of successful results are illogical; however, this is explainable when the lesions, the cavities and the extent of the tuberculosis involvement are considered.

In 29 patients a phrenic nerve interruption was used as an accessory procedure to some other collapse theory or for a miscellaneous purpose with 38 per cent success. Nine "poor risk" patients were prepared for thoracoplasties by phrenic nerve paralysis and all improved, but none were spared the thoracoplasy. The single patient with severe hemoptysis failed to respond and expired. All of the patients who had a pneumothorax, but subsequently lost their pleural space were given hemidiaphragmatic paralysis and they closed their cavities and cleared their infiltrates. Sixteen patients having ineffective pneumothoracies due to apical adhesions had a phrenic nerve paralysis and 50 per cent of these are now considered as arrested cases.

This illustrates the value of a phrenic nerve interruption in collapse therapy of tuberculosis. It has a definite place as an independent procedure, but as an accessory measure it is more adaptable by virtue of its simplicity.

In comparison with others, Decker[6] reported 32 per cent, Potter, Berry and Bortone[5] 55 per cent and Cutler[1] 37 per cent as arrested when used for an accessory or miscellaneous purpose. When used solely with other collapse measures, Miller and Schaffner[10] stated that 46 per cent were cured, while O'Brien[9], by adding hemidiaphragmatic paralysis to an ineffective pneumothorax, had favorable results in 71 per cent. Here again a wide range in the success of phrenic nerve interruptions is in evidence.

Undoubtedly, this wide variation of the effects of interrupting the pathway of the phrenic nerve is attributed to the manner in which used. In many cases it has been used where the cavities are thick, fibrous shells adherent to the parietes which obviously cannot be relaxed to secure closure. Conversely it has been used in acute pneumonic infiltrations which progress to cavitation giving poor results. Both of these examples are the extremes, but it serves to illustrate the chief cause of poor results with phrenic nerve surgery.

The general opinions seem to agree with the conclusions of Nehil and Alexander[8] made in 1933, in which they said "Our best results have been in limited lesions that were relatively fresh and that contained fibrous tissue that was young enough to be still capable of considerable contraction. Our least satisfactory results have been in the extensive fibrotic lesions with large stiff walled cavities".

SUMMARY

1. Data regarding 70 patients having pulmonary tuberculosis, each of which had a phrenic nerve operation are presented.

2. As an independent procedure, it will arrest the disease in 20 to 30 per cent of the cases.

3. As an accessory operation, it bolsters the effects of other collapse measures, but is not as beneficial when used for miscellaneous purposes.

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Sulfanilamide and Surgery for Acute Gonorrheal Pyosalpinx

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IN recent years there have been numerous papers relative to the sulfanilamide group of drugs for the treatment of gonorrhea. During this time we have not seen or been able to get reprints on the use of these drugs in acute gonorrheal pyosalpinx or in acute exacerbations of a chronic gonorrheal pyosalpinx.

About three years ago, in our clinic we started to use this drug in addition to surgery in the above mentioned conditions, gradually decreasing the period of sulfanilamide therapy until we arrived to the point where we are operating on about the fourth day after the patient's admission to the hospital. None of the patients in our series had received sulfanilamide before coming to the hospital and with very few exceptions, these patients usually came to us after they had been seriously ill with severe pains, fever, vomiting, etc., for two to five days; mostly sent in with the first or second visits of the family physician. We found that several advantages had been connected with this treatment in comparison to the previously used more conservative protractive treatment, so that we consider it worth while to report our experiences in this paper.

In order to avoid confusions or misinterpretations of the pathological conditions under discussion, we would like to interpose at this point our concept of the chronological stages of the development of an acute pyosalpinx.

It is seldom that infections of tubes follow immediately primary gonorrheal urethritis or endocervicitis. The internal os is an efficient barrier to most microorganisms, but which may eventually allow the gonoccocus to pass it and invade the tubes after extending over the endometrium of the uterus (which apparently has the peculiar power of an early spontaneous cure) to the tubes, where the gonoccocus finds the delicate folds to be especially well adapted to its implantations and growth. It may be days, weeks, months or occasionally even years after the initial infection before the extension takes place from a chronic or latent endocervicitis.

In the earliest stages—for the infection spreads rapidly — the tubes quickly become larger, straighter, somewhat swollen, and the fimbriae congested and dark red in color, but there are no large masses. The secretions are at first serous, but soon become purulent and escape into the abdominal cavity, becoming implanted upon the adjacent peritoneal surface before the ostium is closed and sealed off. These stages are classified as catarrhal and purulent salpingitis respectively and probably attack both tubes at nearly the same time but not necessarily with the same virulence. If the gonoccocus is not stopped at this point, the next stage, the pyosalpinx follows, in which the fimbriae become sealed with or without becoming adherent to the ovaries, and grossly the walls are thickened and congested with small masses in the adnexae. If the gonoccocal "blitzkrieg" is stopped at this point, the condition may be completely resolved.

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In event the infection is not stalled, the small adnexal tumors become more distended, they may even become immense. There are adhesions to all adjacent structures and secondary infection may result by continuity with the bowels, and if the ovaries are involved, we have tubo-ovarian abscesses.

It has been generally taught that these cases should be operated at some later date. Even though the tubes may gradually shrink and dry up, practically all of the patients are left sterile and usually with great impairment of health.

We should also remember that most of the acute gonorrheal pyosalpinx that we see, are really acute exacerbations of a chronic process. It does not necessarily mean that there has been a previous acute attack. According to Graves and other authorities, gonorrheal salpingitis may start and continue for some time without presenting any acute symptoms. It is this type that gives rise to multiple adhesions and large tubal or tubo-ovarian abscesses. The symptoms are similar to a primary attack, and the history may show, but not necessarily so, a previous similar attack.

To recapitulate—it is to be remembered that gonorrheal salpingitis consists essentially of infected tubes with a gradual extension of pelvic adhesions, which dislocate and immobilize the genital organs; and then, that it may develop into a chronic salpingitis without ever having an acute attack. That all the cases are accom-

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panied by a greater or less degree of pelvic peritonitis, resulting in the destruction of its epithelium with consequently glueing together of contiguous surfaces by adhesions. These adhesions are at first light and filmy and gradually become firmer and unyielding. They produce more and more dislocation of the pelvic organs and at the same time localize the spread of the infection to the pelvic viscera with acute exacerbations following at some future time.

The goal of our service has been to get a more rapid turnover of those patients suffering from an acute attack of pyosalpinx, so severe that conservative treatment is impractical and which will necessitate operation at some future date. Since we started our treatment with sulfanilamide, we have been gradually decreasing the stay of these patients in the hospital. The average days of hospitalization are now less than 21, an advantage for both the patient and the hospital, which cannot be emphasized too much.

Only those cases have been considered in this study, which have fulfilled the following requirements:

1. Markedly increased temperature and pulse rate. 2. High leucocyte count. 3. Rapid sedimentation rate. 4. Tenderness and large masses in both adnexes with fixation of the uterus, usually to the extent, commonly referred to as a "frozen pelvis".

The routine preparation has been:

First Day: Sulfanilamide. Sod. Bicarb. aa. gr. LXXV in five divided doses.

Second, Third, and Fourth Day: Sulfanilamide. Sod. Bicarb. aa. gr. LX in four divided doses.

Fifth Day: Operation in A.M. and 3 doses of 10 cc. of Neoprontosil (5 per cent) at 4 hours interval.

During the following week after operation: Sulfanilamide. Sod. Bircarb. aa. gr. XLV in 3 divided doses daily.

In addition to sulfanilamide we gave, dependent of patient's condition, 5 per cent or 10 per cent glucose intravenously. We used the 5 per cent solution solely for replacement of fluids, while the 10 per cent solution was used to prevent or to combat a post-operative shock. Occasionally, we also used pitressin 1 cc. q. 4 hours for about three to four doses.

We have not stopped the sulfanilamide for purple lips or moderate depression. It is stopped for 24 hours if there is nausea, vomiting, headache or a marked depression, and then resumed at two-thirds of the last dosage used. If there should develop a toxic nephritis, agranulocytosis or jaundice, we would discontinue entirely, but up to date we have not had any of these complications.

In a few cases we have had, as a so-called complication, a prolonged high temperature for some days after the operation or even recurrence of temperature after a free interval. The abdomen of those patients were soft, chest sounds clear and there were no physical findings which could explain these fevers. We thought that it was due to the use of sulfanilamide and after we stopped the drug, the fever subsided promptly and all these patients had a speedy and uneventful recovery.

The technique of the operation does not differ materially from that which has been practiced in the past after the more prolonged preparations and which is commonly adopted today. Of course, the intestines are extremely well protected with moist gauzes and the utmost attention is given to keep the operative field clean with the aid of a suction pump and sponges. The abdomen is closed in all the cases without drainage. As one of the most important features of the operation and one of the advantages of this treatment, besides others, we found that the lines of cleavage between the various structures were much easier to follow and the adhesions easier to free than in operations done later, and this therefore resulted in much less trauma.

In all of the cases we noted the marked decrease in size of the uterine and ovarian vessels. In a few of the most marked cases, the ovarian vessels were completely obliterated which leads to speculation whether or not this may be a factor in the early production of the so-called sterile pus. In doing the first pus operations, the presence of free pus and the friability of the tissues are very disturbing to the operator, but the ease of breaking up of the adhesions and later peritonealization of the raw surfaces is equally pleasing.

During the past three years since we started this treatment we admitted 22 patients with the diagnosis of acute gonorrheal pyosalpinx or acute exacerbation of a chronic gonorrheal pyosalpinx. Out of this number, 16 patients fulfilled our requirements as outlined before and were submitted to this treatment. All these patients responded well to treatment and all had an uneventful and a complete recovery with no complications. There was no distension of the abdomen, no undue amount of emesis, temperature and pulse returned to normal within the first three post-operative days, except in four cases, which had prolonged fever, which we attributed to sulfanilamide, and there were not any undue difficulties in regard to urinations and bowel movements. In all the cases the incisions healed by first intention.

In the following we want to report briefly one typical case, which we selected out of our series and which may demonstrate more clearly all the points we have discussed above.

Mrs. H. H., 25 years of age, was admitted on August 23, 1940, with the chief complaint of pains in the lower part of abdomen and in both sides and excessive vaginal discharge. She first felt slight pains in both sides about five months before admission after the delivery of her only child. She had no vaginal discharge at that time. About three weeks prior to admission, she experienced suddenly severe cramp-like pains all over the lower abdominal region and in both sides. She had chills, elevated temperature and felt very weak. She vomited several times and had excessive whitish vaginal discharge with burning sensations on urination and nycturia. This attack lasted for a few days, after which patient felt better again, so that she could follow her usual routine. However, 48 hours before admission, she had another similar attack with high temperature, chills, vomiting and severe pains. Menstrual history is entirely normal. Is married for five years, but had only one normal delivery; no abortions or miscarriages. Past history does not reveal anything unusual.

Physical examination showed a well developed somewhat pale white female in acute distress. System examination negative except a systolic murmur at apex which was not transmitted. Abdomen very rigid all over, mostly in both lower quadrants. No masses felt on abdominal palpation. Vaginal examination: Vulva negative; Skene and Bartholin glands negative; perineum firm; no cystocele or rectocele; mucosa inflamed; cervix lacerated, eroded; body of uterus could not be mapped out because of extreme tenderness and fixity of masses in both adnexae (frozen pelvis).

On admission: Temperature went up to 103.2/5 and pulse rate to 120/min.

White count 20,000 with 92 per cent Polys.

Sedimentation Rate (Cutler Method) moderately active: 25 mm./60 min.

After sulfanilamide was started, temperature returned to normal and patient was able to be operated on the fourth day after the start of treatment. The operation lasted for 55 minutes and consisted of cauterization of the cervix; bilateral salpingo-oophorectomy; subtotal hysterectomy and appendectomy. The gross findings during the operation were many firm adhesions between omentum, small intestines, sigmoid, uterus and both adnexae. Tubes markedly enlarged, inflamed and full of yellow pus. The ovaries formed part of this mass (tubo-ovarian abscess). Body of uterus large, red and soft. Sigmoid and intestines adherent and markedly inflamed.

The pathological examination was reported with the diagnosis of:

Marked chronic salpingo-oophoritis (pyosalpinx).

Chronic peri-appendicitis.

On the fourth post-operative day patient showed some minor toxic symptoms, such as cyanosis and nausea, and the temperature, after it was returned to normal on the second and third post-operative day, started to rise again and to stay up (103.2/5). Abdomen was soft and the chest was clear and we had no explanation for the cause of the fever except that it was due to the drug and we discontinued sulfanilamide entirely for 24 hours. The temperature dropped the following morning to 98.4/5 and was normal since then. Patient made an uneventful recovery. Wound healed by first intention and there was no drainage whatsoever. Sutures were removed on the twelfth post-operative day and on the seventeenth day after admission, patient was discharged from the hospital as cured.

CONCLUSIONS

Sulfanilamide used in addition to surgery in cases of acute gonorrheal pyosalpinx and acute exacerbations of chronic gonnorrheal pyosalpinx has proved to be of definite value. It shortens the length of hospitalization, which in average is now less than 21 days, and which means much saving of time, money and suffering. The treatment has been as safe with us as the more protractive conservative treatment, and from the surgical point of view, the operation is easier to perform, because the adhesions are less unyielding and easier to free.

SUMMARY

Sulfanilamide administration in connection with surgery in acute gonorrheal pyosalpinx and in acute exacerbations of chronic gonorrheal pyosalpinx was described.

The pathology of this condition was explained and a case reported.

The average acute illness of patients with severe pains, high fever, chills, vomiting, etc., before admission was two to five days and none of the patients had been treated with sulfanilamide prior to admission.

All cases responded well to treatment without any failures.

All incisions were closed without drainage.

All incisions healed by first intention.

The only post-operative complication was prolonged high temperature or recurrence of temperature after a free interval without any accompanying physical symptoms in four cases. After discontinuing the drug, the temperature returned to normal within 12 hours.

The advantages of this treatment are:

1. Shorter hospitalization, which means saving in time, money and suffering.

2. Less operative trauma, because adhesions are easier to free.

3. Success and safety of the procedure, as compared to the more protractive conservative treatment.

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Case Report: Acquired Stenosis of the Pulmonary Valve

Death Caused by Staphylococcus Aureus Septicemia and Acute Bacterial Endocarditis

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ACQUIRED stenosis of the pulmonary valve occurring as an isolated lesion is exceedingly rare.[1,2] It is usually due to rheumatic fever, other acute infectious disease or arteriosclerotic changes in the valve.[1] Meakins states that rheumatic infection of the valve seldom leaves deformity.[3]

In chronic cases of acquired pulmonic stenosis the structural defects result from induration, thickening, fusion, or calcification of the valve leaflets.[3] Hypertrophy and dilatation of the right side of the heart are usually present, due to the obstructed pulmonary orifice.[1] The shadow of the heart is enlarged to the left due to right ventricular hypertrophy, and the X-ray often reveals a rounding of the apical shadow upward.[3]

Norris and Landis bring out that pulmonary stenosis does not effect marked symptoms so long as cardiac compensation is maintained.[1] Varying degrees of shortness of breath may be present on exertion but cyanosis and edema are uncommon unless tricuspid insufficiency occurs and compensation fails.[1] Likewise, clubbing of the fingers is rare in the acquired as contrasted with the congenital form of pulmonary stenosis.[1]

The cause of death in the case of acquired pulmonary stenosis to be reported, namely, acute bacterial endocarditis, is itself an uncommon disease, forming less than 1 per cent of all types of heart disease and all varieties of endocarditis, according to White.[4] Libman[5] states that the right side of the heart is more often involved in acute bacterial endocarditis than in the subacute variety. Allen[6] agrees that the right side of the heart is the site of predilection in acute infective endocarditis. He cites the reports of Blumer, Libman, Clawson, Horder and Thayer, in which series right-sided involvement occurred in about 10 per cent of 859 cases. Libman[5] also states that almost one-third of 59 cases of acute bacterial endocarditis involved the right side of the heart, whereas only 1 per cent of subacute endocarditis involved the right side. Kauffman[7] agrees with these findings. In accord with these views also is the case of DeCandole[8] in which a 25-year-old soldier died of acute staphylococcus bacteriemia and endocarditis of the pulmonary valve; there was no evidence of congenital heart disease in this patient. Apparently, then, there is a greater tendency for virulent organisms (i.e., staphylococcus) rather than relatively avirulent ones (streptococcus viridans) to involve the right side of the heart.

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Interestingly enough, the course of the patient whose findings provide the subject for this report, mimics closely that of acute staphylococcus endocarditis as outlined by Cecil[9]: "The signs of sepsis are more prominent than those of cardiac failure. High fever of the remittent type, a leucocyte count of 15,000, frequent chills, errant pains about the body, violent cardiac action with a coarse murmur, are the signs which indicate a bacteriemia fed by an infected valve. Signs of meningitis are common and delirium is invariably established later in the course of the disease. . ." Libman[5] also stresses meningial symptoms and states that the course of the disease is hyperacute and fulminating when the causative organism is a staphyloccus.

REPORT OF CASE

The patient, a 68-year-old white carpenter, was admitted to the medical service of the Miami Valley Hospital, Dayton, Ohio, August 9, 1940, with the chief complaints of weakness, chilliness, loss of weight, and one episode of vomiting and diarrhea. He had been told he had heart disease in youth, and all his life had been aware he had a heart murmur. In the three months prior to admission he had lost about 30 pounds. About a month before admission he began to notice rapidly progressive weakness, so that he was compelled frequently to stop working and rest for short periods. Nevertheless, he continued to work as a carpenter until a week before admission. For a month or so he had noticed slight difficulty in urinating but had not noted blood in his urine. On August 8, the night before admission, he had eaten a large meal including watermelon and soft drinks, following which he felt nauseated and vomited once. Concomitantly, he was feverish and chilly. Shortly thereafter, he had diarrhea and headache and consulted a physician, who noted that the patient's temperature was 102 degrees F. and referred him to the hospital.

The patient was so acutely ill that it was difficult to obtain a satisfactory history. However, it was learned that he had not experienced at-

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tacks of vertigo or syncope, orthopnea, dyspnea, ankle edema or other symptoms of cardiac insufficiency. He stated he had always been weak if he exerted himself very much. For many years he had had an asymptomatic right inguinal hernia. Ten years before the beginning of the present illness he had had a lung abscess. He thought he had had malaria in youth, at which time he resided in Kentucky. For several summers he had experienced chills and fever but none occurred in the five years preceding the present illness. He drank well-water frequently but never drank unpasteurized milk.

Physical examination revealed an acutely ill, toxic, dehydrated white male who appeared to be of the stated age. He was lethargic and answered questions slowly and with difficulty. The skin was hot and dry. There was moderate hyperpnea but no dyspnea, cyanosis, edema, jaundice, purpura or petechiae. Marked atherosclerosis of peripheral vessels with calcification of arterial walls was apparent. The temperature was 101 degrees F., the respiratory rate 20 per minute, the pulse 88, the blood pressure 110/60. Crepitant rales were audible at both lung bases. A harsh systolic murmur was audible over the entire precordium, thought to be most distinct at the aortic area. No thrills were noted. (The relative intensity of the second pulmonic and aortic sounds was not noted.) A right inguinal hernia and hydrocele were present. The prostate was smoothly enlarged. Neurologic examination was negative save for lethargy and retarded reaction time.

Shortly after the admission examination was completed, the patient suffered a chill which lasted about a half hour. Blood was taken for culture at once.

Initial laboratory work revealed an erythrocyte count of 4,500,000 and a leucocyte count of 14,580 per cu. mm., respectively. The differential count showed a shift toward unsegmented polymorphonuclear neutrophiles. Urine analysis revealed a concentrated acid urine with moderate albuminuria and pyuria. On August 10, the day after admission, serum agglutination tests for typhoid, paratyphoid and undulant fevers were negative, as were the blood Kahn and Kline reactions. Lumbar puncture revealed essentially normal cerebrospinal fluid.

Portable X-ray films of the chest disclosed cardiac enlargement to the left, increase in the shadow of the left hilar area, elongation of the aorta, and suggestion of an early pneumonic process in the left hilum.

About six hours after the first chill, a second, of 15 minutes' duration, occurred. Blood was again taken for culture. Intravenous sulfanilamide was begun on the first day in the belief that the only definite findings were of urinary tract origin and that perhaps the clinical picture could be explained on the basis of acute pyelonephritis. (The cardiac murmur was thought to be due to aortic atherosclerosis.)

The patient's temperature was of a remittant septic pattern and at the end of 24 hours showed no effect from the chemotherapy. At this time both blood cultures showed abundant growths of hemolytic staphylococcus aureus, and accordingly, sulfathiazole was begun. However, the patient's condition became progressively worse and on August 12, 72 hours after admission, he died.

Postmortem examination was performed on August 13, 1940. Only the salient features will be described:

Each thoracic cavity contained about 200 cc. of straw-colored fluid. The cardiac apex was behind the 5th rib, 9 cm. to the left of the midsternal line. The pericardial sac contained about 100 cc. of straw-colored fluid. The heart weighed 450 gm. The apex was blunt and formed by the right ventricle. Numerous small petechial hemorrhages were visible beneath the epicardium. The left heart was unremarkable. The right ventricular wall was much hypertrophied and dilated and measured 22 mm. in thickness. The tricuspid orifice and valve cusps were negative. The pulmonary orifice measured 5 cm. (instead of the normal 8.9-9.2 cm.) in circumference. The valve cusps showed numerous fresh vegetations, soft and friable and quite characteristic of bacterial endocarditis. Many atheromatous plaques were visible on the anterior surface of the cusps. There were no other defects of valves or septa and the foramen ovale was closed. Microscopically, sections of the pulmonary valve showed thickening of the cusps due to fibrosis following old rheumatic infection, with superimposed fibrino-purulent exudate on the free surfaces.

The lungs showed marked congestion and edema and localized areas of bronchopneumonia.

The liver was of the nutmeg variety with acute exacerbation of chronic passive congestion.

The kidneys showed marked arteriosclerosis with well marked sclerosis of the smaller vessels and numerous organizing small infarcts.

SUMMARY

A case of acquired (rheumatic) stenosis of the pulmonary valve in a 68-year-old man has been reported. Death was caused by acute staphylococcus bacteriemia and endocarditis of the pulmonary valve. The outstanding features of the case are the rarity of the lesion, the infrequency of the terminal infective endocarditis and the diagnostic difficulties encountered in such a problem.

Note: The writer wishes to express his thanks to Commander Walter M. Simpson, Medical Corps, U.S. Naval Reserve and Director of the Diagnostic Laboratories, Miami Valley Hospital, Dayton, Ohio, for his valuable suggestions and helpful criticism in the preparation of this case report.

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Even in the most disastrous wars it is clear that the casualties are trivial in comparison with the annual morbidity and mortality from wholly preventable causes suffered by the population. Along with the expenditure of dizzy billions to combat foreign foes, it would seem the part of wisdom to devote a respectable amount of our defense energies and resources to the conquest of the ever present and very real foes within our domestic circle, if for no other reason than the fact that the first line of military defense is the health of the civilian population.—K. E. Miller, Med. Dir., U.S. Pub. Health Serv., Amer. Rev. of Tuber., December, 1941.

The United States Army Medical Milestones

EDWARD B. PEDLOW, M.D.

MEDICAL men are and ought to be patriotic. Unique in the annals of history has been their influence in the formation and continuation of our Nation. Again, interesting indeed are their associations with, and advice given the great men of our country. What influences they have wrought or changes brought about would be difficult to determine. Nevertheless, five physicians signed the Declaration of Independence; Oliver Wolcott of Connecticut, Lyman Hall of Georgia, Benjamin Rush of Pennsylvania, Joshua Bartlett and Matthew Thornton of New Hampshire. Three physicians were members of the Federal Convention which drew up the Constitution; Drs. James McHenry, Hugh Williamson and James McClurg. The first sacrificial blood of our profession flowed from the veins of Dr. Joseph Warren, on the slope of Bunker Hill and many of our colleagues have found eternal rest on the battle field of the Republic.

It is safe to say that the medical treatment of the wounded during the Revolutionary War was haphazard at the best. There was entirely no resemblance of any Medical or Nursing organization. Antiseptics and anesthetics were unknown, consequently the morbidity and mortality from injuries was very high and the suffering intense. Surgeons were often employed where the battle took place and the care for the wounded was attended to by the uninjured soldier, or women of the neighborhood, the hospital being usually a barn. The army was ill equipped, many being sick as the result of privation, and so great was the number who were without shoes, clothes, blankets and hats, one naturally wonders how the army held together at all. In a campaign, often the loss from sickness more than equalled that of combat.

Our Second War with England was practically a repetition of the former, with this possible exception, that our army was better equipped and fed.

In the Mexican War, ether was first used by an American Army. The soldier now at least had some comfort while he was being operated. Its use and application was discovered by Dr. Crawford W. Long, in the little village of Jefferson, Jackson County, Georgia, March 3, 1842. This physician intentionally produced anesthesia to permit the painless performance of a surgical operation. The giving of ether by this country physician was not a haphazard accident, but reasoned out from observations. A crude formation of Medical Corps now appeared, although it would not be for another 50 years before the discovery of antiseptics. Much remained unchanged.

The Author

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During the Civil War, Military Surgery had improved. The Corps were better organized and equipped, both ether and chloroform were employed during surgical procedures. Often in that day and frequently now, the young Southerner journeys north to complete his medical education. A senior student in the Jefferson Medical College of Philadelphia, in 1861 was Hunter McGuire, a native of North Carolina who hurried home to answer the call to arms. This young man became the distinguished Stonewall Jackson's personal and regimental surgeon of his famous foot cavalry. A desperate struggle ensued, a fratricidal calamity. Men endowed with the highest feelings of patriotism and duty marched row after row in close formation to within a few paces and discharged their muskets in the face of one another. Shiloh, bloody Shiloh, the Wheat Field of Gettysburg and the Battle of Chickamauga, which was the hardest fought, most desperate engagement of the War, are illustrious examples of American fortitude and bravery. Often in the heat of battle, as the two swaying lines advanced and retreated, the unfortunate wounded were trampled by friend and foe alike, those less injured, dragging themselves off to a more quiet place. A third of all men that went into the Battle of Gettysburg were left on the field. No such proportionate loss as that was demonstrated in any of the major battles of the World War. During three months, Grant from the Rappahannock to the James, had 200,000 casualities, 50,000 more than his original force.

In each Army probably 80 per cent had never heard a gun fired in hatred. The average soldier was no more than 22 years of age, and in all likelihood younger, entirely inexperienced in warfare, receiving their arms on the way from the States to the scene of battle. They came blundering across the field at one another, often in mob formation, but with a determination that their cause was just, hence the large number of casualities.

The uniforms in each force were odd, seldom

NOTE: One of a series of medical literary essays submitted at request of The Editor.

did two regiments look alike. A few yards of flannel and an Irishman made a Zouave, and now and then, Confederates wore the Union Blue.

The arms were a varied assortment. The Federals being equipped with flintlocks, remodeled into percussion cap weapons. The Southerners, because of lack of rifles, thousands of them carried shot-guns.

The missiles being principally a ball of lead, made the wounds terrible and gapping. Following an engagement, groups of soldiers would go over the battlefield and carry in those that remained alive to a central collecting station, where the surgeons were at work, the usual operation being amputation. Vermin infected the lacerations and the physicians observed that a mixture of whiskey and chloroform if applied would chase them out in great numbers. Little did they realize the antiseptic value of the solution. Representing the northern view as to the condition of its camps, Dr. Lewis H. Steiner, Chief Inspector of the Army of the Potomac, leaves a creditable report, while Dr. Edward A. Warren, Medical Inspector of the Army of Northern Virginia, does likewise for the South.

The wounds, however, reeked with pus, the germ theory still unknown and our camps polluted with pneumonia, tetanus, typhoid and dysentery. It was observed by the soldier that the latter disease could be controlled by eating blackberries. If a patch happened handy between the lines and no battle in progress, often the Johnnies and the Yanks would call an impromptu truce, fraternizing while berry-picking. This became such a common occurrence at Vicksburg that the parties had to be broken up by officers.

Because of the bronchial ailments and influenza in the camps, at night one could hear the chorus of "graveyard coughing". Indigestible messes made by awkward cooks added to the digestible horrors. Diarrhea was known as Tennessee quickstep and was treated by the surgeons with jocosity more often than with medicine. Sanitation in both armies was bad, logs serving as latrines. The 33rd Indiana had 511 of its 1000 soldiers removed to hospitals and 62 of the sick men died. This serves an illustration of what was commonplace in most regiments, especially at the beginning of the War. The soldiers, when it was possible, slept in huge Sibley tents, 20 to 22 laying spoon fashion, with a sheet iron stove in the center. In 1862 the War Department abandoned these for the small service tents, each man carrying a half.

NURSES AND VOLUNTEER WORKERS

Nurses were convalescent soldiers, or volunteer workers, male and female. Makeshift groups of women appeared in these roles, especially in the larger cities where hospitals had sprung up recently. Few followed the army, however, the most notable of which was Mother Bickerdyke, an Illinois widow, who accompanied Sherman's Army from the fall of Fort Donelson, till their final review in Washington, in which she rode an army horse side saddle, attired in a calico dress with a sunbonnet on her head, receiving cheers and flowers from the crowd. Another cherished soul was Mrs. John L. Ketcham, who accompanied the 17th Indiana. These and many more toiled in the hospitals, bathed the wounded, cleansed the dressings and ladled water out to the men on the march. A two horse spring wagon with a canvas top and a bench seating eight on either side consisted of an ambulance on the floor of which three badly injured men could be carried. Creeping things of every description covered the soldiers' bodies, fleas, chigres, green flies and maggots complicated with itching intense and the torment almost intolerable. The Confederates had much the same problems to contend with in their army.

THE SPANISH-AMERICAN WAR PERIOD

The Spanish-American War period demonstrated few, if any, advancements in military surgery or sanitation over the war previous, although the nursing department had become better organized and equipped to take care of the wounded. Camps in this country were full of typhoid and dysentery and the canned meats and other products did not enhance the comfort or health of the troops. The treatment of the injured showed little, if any, improvement and the wounds still flowed pus.

Thirteen soldiers died from disease where one died from bullets. During a four months stay at a camp in Jacksonville, Florida, a division of 10,759 men had 1729 known cases of typhoid, 964 cases of unknown fever, most of which was undoubtedly typhoid, with 248 deaths from this disease and 281 deaths from all other illnesses, making a total of 529 deaths during that period, a death rate of 147.5 per 1000 men. In Cuba the troops suffered from tropical diseases, of which yellow fever was most in evidence.

The sanitary and medical arrangements in the training camps were shockingly inadequate. Total fatalities in the Army were 5462, of which 379 were killed in action or died from wounds, hence the remainder, 5083, were victims of various diseases, brought on by unsanitary camps, improper food, and bad water. In the Navy there were less than 20 men lost through battle casualties, a remarkable record considering there were two major naval engagements.

An Army was sent to San Diego. When the crowded transports arrived with troops, it was discovered that there was no way to land supplies on the surf ridden beach without lighters. The soldiers landed much goods and remained aboard ship. Most of the medicines, including quinine which was greatly needed, never got ashore at all. Medical supplies were buried at the bottom of the cargoes. The soldiers would not eat the embalmed beef, but our Cuban allies accepted it with thanks. They stole everything else that they could lay their hands on and in battle were conspicuously absent.

The life of America's most distinguished Surgeon General, whose span of years covered the greatest advancements of our Medical Corps, we will now discuss. His parents came from distinguished ancestry. His father was General Josiah Gorgas, a Pennsylvanian—Chief Ordnance officer of the Confederacy; his mother, Amelia Gayle, whose father was one of the most influential men of the Southern States, Governor of Alabama, Congressman and District Judge. From this union was born William Crawford Gorgas, October 3, 1834, near Mobile. At the outbreak of the War of 1861, Josiah Gorgas cast his fortunes with the South. His situation was by no means a solitary one and during the Civil War they made their home in Richmond. When the Confederate States surrendered, he was 11 years old. His father was ordered to leave with Davis and the rest of the cabinet, while he and his mother and the remainder of the family made their way to Baltimore. The description that Dr. Gorgas gave in a public speech in Baltimore in 1915, correctly portrays his sentiments at this time. He said, "I first came to Baltimore a ragged, barefoot, little rebel, with pockets and stomach empty. My father had gone South with the army. At the fall and destruction of Richmond my mother's house, with all she had was burned, leaving her stranded with six children. We came to Baltimore and were cared for by friends".

In 1869 his father was made president of the University of the South at Sewanee, where young Gorgas received his early education. He attempted to get an appointment into West Point, but was unsuccessful, nevertheless his desire to join the army only became intensified. In the autumn of 1876 Gorgas enrolled in the Bellevue Medical College in New York City, where he remained the next four years. He graduated in 1880, served a brief internship and joined the Medical Department of the Army against the advice of his father. The next two decades of Gorgas' life were the every day matter-of-fact career of an army doctor. He spent several years at various points in Texas, Fort Clark, Fort Duncan and Fort Brown. At the latter place he met his wife, Marie Doughty, a sister to the wife of the Commandant Colonel Lyster.

GERM THEORY OF DISEASE

By 1900 the germ theory of disease was beginning to make some headway. An entirely new and uninspected world had been uncovered with the microscope. Pasteur, Koch and Lister were making valuable history. Gorgas continued his studies, and was one of the first American surgeons to practice aseptic surgery. He hunted for knowledge about yellow fever. There is something almost fatalistic indeed in the way it dogged his whole life. It led to his marriage as he cared for his wife when she contracted the disease at Fort Brown. An epidemic in the North in 1853 sent his mother, Amelia Gayle, to Mobile and lodged her in a house next to the one in which Josiah Gorgas was living, a happy accident, which ultimately resulted in his birth. The physician who attend his mother at his arrival was Dr. Josiah Nott, a yellow fever expert, much ridiculed because of some fantastic notions, that this disease was conveyed by the bite of a mosquito. His paper was published in the New Orleans Medical and Surgical Journal. During the Spanish-American War Dr. Gorgas was in charge of the yellow fever camp at Siboney. One of his patients was Victor Vaughan. On the advice of Gorgas and Vaughan, the commanding officer burned the whole town of Siboney. In after years they kidded each other about the event and wondered how many mosquitoes were destroyed in the conflagration.

YELLOW FEVER

In 1898 Gorgas became Chief Sanitary Officer of Havana. Sad indeed had been the experience of the foreigner who invaded the yellow fever locality. Armies and visitors faded away as chaf before the wind. On the date above the population of Havana was chiefly composed of natives and therefore immunes. The Spanish Army had returned to Spain, its evacuation had deprived yellow fever of much of that fresh material which is necessary for its sustenance. Consequently, the yellow fever situation was far more favorable than it had been for many years. The theory that this tropical scourge was caused by contact was strongly held, especially by the surgical department of the American army. Gorgas energetically cleaned up the city and when this failed to stop the spread of the disease was naturally a disappointed man. There was one man in Havana who had watched the sanitary measures of the Americans with a somewhat skeptical interest. In the mind of Dr. Carlos J. Finlay the whole proceeding was absurd. He was one of those enthusiasts who cared little for the ridicule of the crowd. For many years he was one of the best known and most charming characters in Havana. In 1881 Dr. Finlay read a paper before a Medical Congress in Washington, D.C., in which he asserted that yellow fever was transmitted by the Stegomyia mosquito. As there are about 800 varieties of mosquito, this was indeed a most remarkable reasoning. Finlay's life is perhaps the saddest tragedy in the history of modern medicine as he had hit upon one of the greatest discoveries of the age but never had succeeded in demonstrating its truth. All of his own experiments were a dismal failure. His work, as Gorgas afterwards said, remains "a splendid example of medical clairvoyance, a beautiful manifestation of the scientific imagination".

In 1881 Sir Patrick Mason discovered that the worm which caused Filariasis was introduced into the blood by a mosquito. In 1889 two Americans, Drs. Theobald Smith and H. L. Kilborne, observed that the plague of cattle known as Texas fever is transmitted by a tick. In 1897 Ronald Ross demonstrated that the Anopheles mosquito was the infecting agent of malaria. Naturally these new developments aroused interest in the Finlay theory. The yellow fever situation was daily becoming more desperate. So serious was it that the Surgeon General now appointed a Commission to visit Cuba and investigate the disease. This troup of men consisted of Walter Reed, James Carroll, Jesse W. Lazear and Aristides Argramonte. Already one discovery had been made. Dr. Henry R. Carter of the Public Health Service observed that persons who visited the sick within a period varying from ten days to two weeks after the patient's seizure, never contracted the disease. It was the visitor who came after this period that became ill. The mere presence of the patient was not essential to the transmission of infection. After his removal, death or recovery, the house was just as dangerous as before. Reed looked over Carter's data and records on this subject and came to the conclusion that there was an insect host. It was not until early July, 1900, that Reed, having learned of Carter's theory of "extrinsic incubation" turned to the Finlay theory of mosquito infection. Finlay furnished the mosquitoes, as he always kept a plentiful supply on hand. The Finlay mosquitoes were fed on patients ill with yellow fever and then the same mosquitoes were allowed to suck the blood of men in normal health. Members of the Reed Board subjected themselves to these tests and came through without the slightest injury; they had ignored Carter's great discovery of "extrinsic incubation". A month later Carroll and Lazear became careless with their infected mosquitoes, Dr. Carroll came down sick, Dr. Gorgas was called and diagnosed the case as yellow fever. Carroll in his lucid moments explained that he had subjected his arm to the bite of an infected mosquitoe. While Carroll was lying ill, Gorgas was called to examine Dr. Lazear. At a glance he saw his friend was mortally ill, but before he sank into delirium he told Gorgas that the mosquito that bit him was unquestionably a Stegomyia, and on September 25 Lazear died.

Now Reed set up a camp, named Lazear, in honor of his fallen associate, and American soldiers volunteered to act as guinea pigs, and thus they were able to determine that the success of the following experiments depended upon these facts: first, that in order to become infected the mosquito must bite the sick person sometime within the first three days of his illness, for the succeeding ten days to two weeks the insect is harmless, but after that it becomes more dangerous to human life than the most ferocious beast of the jungle. With that data in mind, Gorgas now commenced to fight the mosquito and to study the peculiarities of the Stegomyia. Soon it was found that it stayed about the houses and that the female was the offensive factor. Yellow fever had prevailed in Havana from 1762-1901 and there had not been a day when yellow fever did not exist. In 1896 there had been 1282 deaths. Gorgas began his work in March, 1901, with a steady decrease of the disease and from 1905 to 1923 there was not a single case.

With Gorgas' successes before him, President Roosevelt cleared away the difficulties which for 400 years had prevented the building of the Panama Canal. He was now sent to the Isthmus in March, 1904, to take up the work where the French had failed, losing 20,000 lives in eight years.

His little group was composed of the following: Mr. Prince, Doctors Carter, Ross, Balch and La Carde, Major Tutle and Miss Hibbard, head nurse. Few took them seriously or gave them help or encouragement in their work. This company, augmented by some Sisters of Charity, the last resemblance of the French attempt, commenced to institute sanitation measures. At home Admiral Walker, the head of the Commission, a hard-boiled old salt, would laugh uproariously at Gorgas chasing mosquitoes and pigeon-holed all requisitions. General Davis, the first governor of the Canal Zone, would pityingly say to Gorgas, "I am your friend, I am trying to set you right on the mosquito. You are simply wild and all that agree with you are wild. Get the idea out of your head, yellow fever is caused from filth"!

Soon President Roosevelt began to doubt Gorgas, and if it had not been for William H. Welch, Dean of Hopkins, and Alexander Lambert, a close friend, Gorgas would have been removed and brought home. The Commissioners, Governors and Engineers changed from time to time, but Gorgas remained to the end, 10 years, and finally the Canal was completed by Colonel Goethals and Colonel Gorgas, a triumph in sanitation and engineering. Gorgas did his work with the drainage of swamps and oil, while Goethals used the steam shovel.

With this work completed, he visited numerous countries and lectured on yellow fever. His journey was one continued success. When Woodrow Wilson was elected President, Dr. Gorgas was made Surgeon General, and remained as such throughout the World War. Three days after the armistice he resigned and shortly afterwards, in company of Mrs. Gorgas and friends, sailed for London. They toured Belgium, France and Africa, returning to London, stopped at the Hotel Savoy. His journey there was abruptly interrupted about three o'clock one morning when the doctor called Mrs. Gorgas and said he had had a slight stroke, and upon the advice of General Noble and Sir John Goodwin, Surgeon General of the British Army, he was removed to the Queen Alexandria Military Hospital of Millbank. During his protracted illness, his calm fortitude and surprising cheerfulness never forsook him. His visitors were distinguished and many. King George conferred upon him the Most Distinguished Order of St. Michael and St. George, saying, "I greatly appreciate the great work that you have done for humanity". However as time elapsed the Doctor grew weaker and finally passed away July 3, 1920. He was accorded a funeral of a British Major General in St. Paul's Cathedral, which was the highest honor a Britain could pay a distinguished American. Upon the arrival of his remains in our country his body laid in state at Washington for four days. After appropriate ceremonies he was taken on a journey over that long lonesome road which finally came to an end on one of the most beautiful slopes of our silent City of National Heroes—Arlington, and all the world knows that the earth beneath which his body lies, covers the ashes of a patriot and medical hero, whose greatness shed lustre on the age in which he lived.

During the World War the Medical Corps became a highly trained, specialized department. While an engagement was in progress, a medical detachment followed the combat troops, administering first aid and indexing the wounded. Later, they were removed to a First Aid Station where surgeons gave what immediate attention was deemed necessary. From there they were transported by any means of conveyances to the Evacuation Hospitals, which tabulated the injured according to the type of wound, transferred them by ambulances to the various base hospitals which were located far behind the lines. Later in the war they were conveyed from these base hospitals to the more distant hospitals or evacuated for the United States on transports. On this later journey they were carried on specially constructed trains, the first of which was in charge of Dr. Burt Hubbard of Lima, Ohio. It was made by the French of some of their old baggage and express cars, at St. Denis and labeled number 50. Never a success, but it led the way for the later improved hospital trains. Our trains usually consisted of two combination cook and dining cars, one baggage car, ten ward coaches for holding 360 recumbent or 718 sitting patients. In addition there is one coach for the staff, one for the enlisted personnel, and one car for medical and surgical stores, with an operating and dressing room.

There are also specially constructed airplanes that carry the injured. These are usually employed for emergency work and are in charge of a Flight Surgeon. The nursing corps is now a well trained group of men and women. Diseases such as typhoid, tetanus and dysentery have almost vanished, although we did have a violent epidemic of influenza, especially in the American camps. The operating rooms are now equipped with all the latest methods and devices to lessen the mortality and morbidity. Because of its many new and numerous duties, the Medical Corps of the United States Army has become one of the most hazardous branches of service, losing the largest number of officers per capita. Man is allotted a certain amount of vital force, that exhausted, he dies. Its unestimatable waste in war has continued down through the centuries. However, today we see it curtailed to a large extent through a highly efficient Medical Corps.

In conclusion it is readily discernible to observe that the physicians of our country have given much to the aid and comfort of its soldiers. As they have arisen in the past to meet the occasion and the conditions that confront them in the time of war, so they will now again arise to serve their country nobly and creditably, bringing aid to the injured and distressed. Beyond a question of a doubt, a review of the history of the world reveals that never has there existed any government which has so many opportunities to offer, and which has so continuously and generously offered these opportunities to its citizens other than the United States of America. Let us protect, defend and preserve our heritage.

In the war, I was a buck private in the infantry and never had much respect for the Medical Corps until injured. I wish, however, to point out that the Corps is more than just a nursing department of the army, that the service it has rendered and is about to render is most valuable beyond estimation. As I have served my country in both the Line and the Medical Corps I do not hesitate to point out the advancements and the great value of the Medical Department.

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Dissecting Aneurysm of the Aorta

Case Report Presenting Clinical Problems

HARRY LANDT, M.D., AND RALPH H. FULLER, M.D.*

THE clinical diagnosis of so-called dissecting aneurysm of the aorta still remains, in most instances, extremely difficult. In many a case the only clue is a subjective history of precordial or abdominal pain. A review of the records, clinical and pathological, of 26 cases of dissecting aneurysm studied at the Cincinnati General Hospital reveals a surprisingly high incidence of partially healed, small, dissecting hematomata associated with aortic medial disease of one kind or another. Such lesions are found incidently at necropsy, death having resulted from some other cause. In such cases there is frequently found recorded in the clinical history nothing which can be significantly related to the occurrence of dissecting hematoma in the wall of the aorta; there is occasionally a vague history of transitory precordial or abdominal distress. However, a review of the literature and study of locally collected case records leads to the conclusion that in those cases which terminate fatally, greater attention to detail in clinical study would very frequently result in correct ante-mortem diagnosis. The anatomical location of the dissection is the one factor of greatest importance in explaining variations in the clinical syndrome and the frequent occurrence of bizarre and frequently vacillating symptoms and signs. The following case record is of particular interest because it presents a puzzling clinical syndrome explicable if one considers fully the possibilities in regard to the primary site of the lesion and probable effects of repeated changes in the extent of dissection.

A negro, 58 years old, was admitted to the hospital complaining of weakness and drowsiness.

History: The onset of illness had occurred during the morning of the day before hospital entry. While at work he began to suffer severe right-sided headache, became weak and dizzy, and perspired profusely. Late that morning he quit his work, drove his car home without assistance and went to bed. Nausea and vomiting occurred during the evening. Weakness and dizziness became more pronounced. He complained of "pain in the right side" and of tingling sensations in the right arm and leg. At the same time he found that he could not move his left leg or left arm. A physician was called. The patient was told that he had had a "slight stroke" and hospitalization was advised. Early that morning he complained of pain in the right upper chest. An abnormal thirst developed and he drank large quantities of water.

The patient stated that, with the exception of two attacks of "flu", he had never been seriously ill. No symptom of heart disease could be discovered in the past history. About five years prior to hospital entry he had been told by a physician that he had high blood pressure.

Physical examination: The temperature was 98° F.; the pulse rate, 112; the respiratory rate, 28; the systolic blood pressure, 80; and the diastolic pressure, 60. As the patient lay in bed it was noted that the external jugular veins appeared to be engorged, this being more marked on the right side than on the left. When the patient sat up in bed this venous engorgement disappeared. On the left side, at the base of the neck, a systolic murmur was heard. The lung fields were "clear to percussion and auscultation". The heart apex beat was palpable inside the left nipple line and in the fifth costal interspace. The heart sounds were distant but the rhythm was regular. A blowing systolic murmur and a faint diastolic murmur were heard over the aortic area. There were no thrills nor were the valve closures palpable. The pulses were equal and of fair quality. There was slight abdominal tenderness to palpation but no abdominal rigidity. The anterior-inferior border of the liver was felt three centimeters below the right costal margin but the superior border was depressed. No abnormal abdominal masses were noted. The only significant findings on neurological examination were evidences of minimal residual weakness of the left face, arm and leg.

Laboratory Data: The hemacytological findings were normal. Urinalysis yielded negative findings. Lumbar puncture was performed and eight cubic centimeters of clear fluid were removed. The initial spinal fluid pressure was 190 millimeters; the final pressure was 160 millimeters. The fluid contained no erythrocytes or leukocytes. The Pandy test was negative. The venous pressure in the left arm was found to be 7.5 centimeters of water, in the right arm 9.5 centimeters of water.

Course in the Hospital: During the physical examination following entry the patient began to have a series of severe abdominal cramps which he described as being generalized although the pain seemed to center about the umbilicus. These cramps recurred at intervals of about 90 seconds and each cramp lasted about 20 seconds. At times the patient would "double himself up" and toss about in bed. He appeared to suffer encruciating pain. A marked increase in respiratory rate accompanied each attack. After about 45 minutes there was spontaneous relief from these cramping pains and the patient dropped off to sleep. He slept well that night. The next morning he felt well and ate a large breakfast. About one hour later he suddenly began gasping for breath and the pulse became imperceptible. The heart sounds could not be heard. Adrenalin was injected into the cardiac region without effect. The patient was pronounced dead.

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*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

This is the seventh of a series of "Case Records Presenting Clinical Problems," selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

Clinical Diagnosis: Clinically, opinion was divided as to diagnosis. At least one observer believed the condition to be "dissecting aneurysm of the aorta"; the other diagnoses were "coronary occlusion" and "mesenteric thrombosis".

CLINICAL DISCUSSION

The vacillating signs and symptoms together with the clinical course should have been considered to point directly to "dissecting aneurysm" as the foremost diagnostic probability. The recorded data with regard to the physical examination in this case are such as to reflect some lack of attention to detail. Although there was a definite difference in the degree of engorgement of the right and left jugular veins in the prone position no mention was made of palpation of the pulses in the carotid arteries. The radial pulses were said to be equal, but bilateral simultaneous blood pressures were not recorded to corroborate this finding. Because of the thoracic distress and the definite drop in blood pressure a diagnosis of acute coronary occlusion was entertained, yet an electrocardiogram was not made. With dissecting hematoma of the aortic wall associated with extravasation of blood into the pericardial sac, electrocardiographic changes suggesting acute coronary occlusion may occur and be associated with a friction rub; this has been seen in another case, with necropsy verification. In the presence of cardiac tamponade, however, one may expect a decrease in voltage without contour changes in the complex, provided the heart itself is not implicated in the dissection. The presence of a systolic-diastolic murmur at the base certainly justifies the suspicion that a dissecting hematoma has caused distortion of the aortic ring; however, this may only be considered strong confirmatory evidence of dissection if there exists a recent record of normal aortic sounds. The precipitant occurrence of a to-and-fro aortic murmur has been mentioned in the literature dealing with this syndrome.

From a neurological viewpoint, the history and the findings on physical examination in this case are especially interesting. There is a definite history of left hemiplegia and evidences of residual weakness were found on physical examination; however, it was evident that marked improvement had occurred within a few hours following the onset and the sensory symptoms present on the right side during the onset of the left hemiplegia had completely disappeared. It is highly significant that the neurological changes were bilateral in distribution and associated with unequal engorgement of the jugular veins. In the absence of hydraulic failure this combination of findings can hardly result from any other cause than upper mediastinal compression. The extreme thirst experienced by the patient undoubtedly resulted from stimulation of the sensory nerve of the pharynx; it seems entirely reasonable to interpret this system as additional evidence tending to localize the disease process in the upper mediastinum. Although cramping abdominal pains may occur as reflex phenomena related to a lesion within the abdominal cavity, in this case the complete clinical syndrome cannot be adequately explained on the basis of a diagnosis of intrinsic abdominal disease. It is indeed difficult to fit the clinical syndrome to the diagnosis of "coronary occlusion". On the other hand, the syndrome presented in this case seems entirely consistent with the clinical diagnosis of dissecting hematoma of the aorta.

Necropsy (N-41-31) was performed by Dr. Raymond McGann. Lesions which could be significantly related to the clinical syndrome were found limited to the cardio-vascular system. The pericardial sac contained approximately 200 cubic centimeters of partially clotted blood. The lining serosa of the perietal pericardium and of the visceral pericardium, save at the base of the heart and about the ascending aorta, was smooth, pale, thin and transparent. Although no laceration could be found in the pericardium reflected upon the ascending aorta, the serosa was in this area lustreless, opaque and deep red; the supporting connective tissue appeared to be the site of extensive hemorrhage extravasation.

The ascending aorta and proximal arch presented a dissecting hematoma in the outer third of the medial coat. This did not completely encircle the aorta but extended about two-thirds of the distance about its circumference; the media of the ascending aorta at the right posteriorly and of the lesser curvature of the arch remained intact. Proximally, medial dissection had reached the level of the aortic ring; distally, it encircled the roots of the innominate, left common carotid and left subclavian arteries but did not extend into the proximal trunks of these vessels. There was no continuity of space between the area of dissection and the lumen of the aorta; the intimal coat of the aorta was intact. The lumen of the aorta was of normal caliber in the region of the aortic isthmus. The aortic intima presented scattered, irregularly outlined plaques and linear streaks of yellow thickening and increased opacity. These atheromatous lesions were most marked in the abdominal trunk; none was "ulcerated".

The heart weighed 430 grams. The coronary arteries were patent; they presented only occasional, small, yellow intimal plaques. There were no signs of acute myocardial infarction nor were there evidences of myocardial scarring. The left ventricle was moderately "cupped". The aortic cusps and mitral leaflets showed only very slight fibrous thickening; the tricuspid and pulmonary valves were normal. The mesenteric blood vessels presented no evidence of disease aside from mild arterial atherosclerosis.

Microscopic sections of the ascending aorta showed an accumulation of extravasated blood separating the medial coat into two layers, a thick inner layer and a thin outer layer. In an occasional area the "plane" of dissection extended deep into the outer third of the media and approached the adventitia. The adventitial connective tissues were permeated by extravasated blood. In the medial coat of the aorta and related to the hematoma, but also seen in the regions where the media was otherwise intact, were numerous, small, sharply defined, areas of acellularity and marked rarefaction. In these foci of rarefaction, the tissue showed a marked tendency to take the basic stain and to appear somewhat mucinous. The appearance presented was that first described by Gsell[1] but termed "medionecrosis aortae ideopathica cystica" by Erdheim[2].

The final diagnosis was myocardial hypertrophy (probably hypertensive) with medial degeneration and dissecting hematoma of the aorta leading to hemopericardium.

COMMENT

As one attempts to reconstruct the story of this case and to relate the appearance of clinical signs and symptoms to the development of the lesion, it seems probable that the sequence of events may have been as follows: There was an indefinitely long period of antecedent hypertension. The development of medial disease in the presence of hypertension led to the rupture of vasa vasorum in the outer third of the media near the region where the great vessels arising from the arch traverse the wall of the aorta. A hematoma of the wall of the aorta was produced. This hematoma, for a time, remain localized and by compression of the great vessels arising from the arch caused a degree of circulatory embarrassment which was reflected in the occurrence of headache and of transient signs and symptoms which suggested the presence of a primary intrinsic cerebral lesion. However, the hematoma did not long remain localized; dissection of the medial coat was associated with shock and with the occurrence of sharp pain in the chest. Moreover, as this dissection occurred the pressure partially obstructing blood flow in the arteries arising from the arch was relieved.

Dissection of the medial coat inevitably resulted in laceration of the walls of other vasa vasorum and in the accumulation of blood in larger quantity. A vicious cycle being established, there occurred further dissection into the wall of the ascending aorta, presumably shortly after hospital admission, at which time there occurred a series of severe cramping abdominal pains. Distortion of the aortic ring was reflected in the production of a systolic-diastolic murmur. It is probable that further dissection did not occur after this sign made its appearance. There was continued accumulation of blood in the medial cleft and this was associated with a gradual, but probably progressively accelerated, seepage of blood into the advential tissues of the ascending aorta and the escape of free blood into the pericardial sac. Continued accumulation of blood in the "aneurysmal" space, especially if further dissection did not occur, might result in suddenly renewed compression about the roots of the great vessels arising from the arch and be the cause of acute cerebral anoxemia. In fact, three factors may have played rôles in causing death, hemopericardium, peripheral vascular collapse and cerebral anoxemia.

Acute Thoracic Injuries

During recent years outstanding progress has been made in the field of thoracic surgery. Diagnostic methods have improved. Clearer and more applicable have become the available procedures for the management of empyema, both acute and chronic. The institution of surgical collapse therapy, in the hand of the thoracic surgeon, has definitely added to our success in the management of pulmonary tuberculosis. Thoracoplasty, perhaps the most widely employed of these major surgical procedures, is now performed in surgical clinics throughout the world. With the development of a better understanding of the clinical physiology of the thorax, it has become safer to remove mediastinal tumors of various types. This has been further facilitated by progress in the applications of inhalation anesthesia, as well as by a better understanding of the prevention of anoxemia and the resultant anoxia.

Bronchiectasis, that dread disease, is now coming under surgical control largely through the development of modern lobectomy. This has become a relatively safe procedure in a number of surgical clinics, while in a few the morbidity and mortality rates are astonishingly low. During the past decade it has even become possible successfully to remove the entire lung; thus, pneumonectomy is now being accomplished both for suppurative and malignant pulmonary disease. Consequently, a means is afforded for the control of cancer of the lung, now increasingly more widely recognized.

In clinical researches, incident to the development of these various surgical procedures, much has been learned of thoracic physiology; of the mechanical as well as the cellular requirements of respiration and of the mechanics of disordered cardiac action, together with resultant disturbances of the circulation. It is, therefore, readily understandable that our knowledge of the recognition and management of acute injuries to the chest has likewise made definite progress. Some of these advances are well established, while others are well worth discussing, even though at present they may be in a state of evolution.—George M. Curtis, M.D., Columbus, Ohio; Northwest Med., Vol. 41, No. 3, March, 1942.

Commoner Forms of Pruritis Ani

Etiologically, true pruritis ani is caused by faulty, or improper nutrition. The protective function of the intestinal mucosa is impaired and bacterial infection occurs to complicate the condition. At this point, some form of nutritive failure becomes manifest, due to the inability of the digestive tract properly to digest and absorb nutritive essentials, many of which are either absent, or present in minimal or subminimal amounts in the faulty diet.—N. Philip Norman, M.D., New York; New International Clinics, Vol. IV, series 4; 1941.

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[1] Gsell, O.: Virchows Arch. f. path. Anat. 270: 1, 1928.

[2] Erdheim, J.: Virchows Arch. f. path. Anat. 276: 187, 1930.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBERCULOSIS IS FOUND WHEN LOOKED FOR

That tuberculosis can be found and is most easily cured in the stage before symptoms appear is an axiom that has grown trite with repetition, yet the great majority of people fail to translate this into the action which will safeguard themselves and their families from this disease.

But what are the facts? In four years the deaths from tuberculosis surpass the number of those killed in all the wars the United States has ever fought. If the losses of one year from tuberculosis could be attributed to enemy action, the nation would be shocked with grief and vow vengeance at any cost. Yet, the slow undramatic dribbling away of lives goes on, day by day, though proof has been added to proof that this can be stopped.

For an example, take a look at our colleges and universities. Into their doors every Fall go hundreds of thousands of American youth, those favored ones of earth from whose ranks will come most of the trained men and women of our society. Yet tuberculosis has already laid its hand upon many of these. During 1939-40, 637 cases of tuberculosis were found in 248 of these institutions with a total enrollment of 500,000 students, because it was looked for. Most of these infected students can be saved for useful, productive lives with a minimum of time lost.

What is the story where the college authorities report that no search is made? Only 35 cases appeared in 227 institutions among 200,000 students during the same period, is the answer. But is that the whole story? No, for back of those 35 cases many more stand in shadowed ranks, already touched by the destroyer. It is easy to prove that tuberculosis is there—a tuberculin test, followed by an X-ray of positive reactors is the magic wand that will bring to light the hidden lesions. But when they are not found early we know the story too. Most of them will progress to the stage where treatment is to be reckoned in years, and complete cure is the exception.

The illustration here shown is based on the 1939-40 report of the Tuberculosis Committee of the American Student Health Association which was compiled from data received in response to a questionnaire which they sent to colleges and universities throughout the country. The 1940-41 report of the Committee changes it but little.

And what of the 402 institutions whose administrators did not even reply to the questionnaire? We can only surmise that they, too, have failed to translate the thing they know into the thing they do. Some of them, perhaps, are even unaware that tuberculosis is now, as it has always been, a foe of youth.

Yet, it is to the purusuit of knowledge that all these institutions are dedicated, and it was many years ago that Ralph Waldo Emerson said, "Education is not pouring knowledge into minds; it is not erudition. A person is not truly educated unless knowledge influences his **doing** as well as his **thinking**. In so far as learning alters and directs **behavior** it is education".

In this respect, unfortunately educators follow but the common path. In the trade union, the insurance office and the department store, in the hospitals and the homes for the aged, wherever men and women are gathered together, tuberculosis may be found when looked for. No class is exempt, no land is free from it—it is an enemy power we know how to conquer, but the war is prolonged by "too little and too late."—Based on reports of the Tuberculosis Committee of the American Student Health Association, Charles E. Lyght, M.D., Chairman, and published in the Journal-Lancet.

Effect of War on Morbidity and Mortality of Tuberculosis

The detrimental effect of war on the morbidity and mortality of tuberculosis is well known from the lessons of the Great War of 1914-1918. According to the consensus of opinion it was due to a multitude of factors and circumstances, such as malnutrition, overcrowding, overwork and, in some countries, suspension or curtailing of public health services, diminution of beds available for treatment, etc. These conditions and circumstances cannot be eliminated from war and a similar increase in mortality and morbidity of tuberculosis is generally expected. In England there are at least five additional major factors present at this time which did not exist in the last war: intensive air raids, black-out, mass migration of the population, shelter life and conscription of women. Closer scrutiny of the tuberculosis problem, however, raises some hope for a more optimistic view. In 1914-18 the diagnosis of early tuberculosis was a difficult one, tuberculosis welfare was undeveloped, collapse therapy was restricted to a few cases and thoracic surgery did not exist. Whether these methods are sufficient to prevent an increase in the disease cannot be answered yet.—F. Kellerman, M.D., Tubercle, September, 1941.

Last Call for Annual Meeting Hotel Reservations! Don't Delay! Fill Out and Mail Blank Today!

DON'T delay making hotel reservations for the Ninety-Sixth Annual Meeting of the Ohio State Medical Association, Tuesday, Wednesday and Thursday, April 28-30, at the Neil House, Columbus. You know what type of accommodations you want. The best way to insure your obtaining those accommodations is to make a request for reservations—**immediately**—to the hotel where you wish to stay. You'll leave home for the Annual Meeting with greater anticipation if you know that a hotel room will be available for you upon your arrival in Columbus.

Requests for hotel reservations should be addressed directly to the management of the hotel selected.

Look over the accompanying list of Columbus hotels, their location and room rates. Make your choice. Fill in the blank accordingly, and mail it **NOW.**

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
NEIL HOUSE (Headquarters Hotel) 35 South High St.	665	$3.30-5.50	$4.95-6.60	$5.50-7.70	$8.80 and up
DESHLER-WALLICK Broad and High Sts.	1000	3.30-7.70	4.95-11.00	5.50-11.00	8.80 to 19.80
FORT HAYES 31 W. Spring St.	350	2.50-3 50	4.00-6.00	4.00-8.00	7.00 to 18.00
CHITTENDEN High and Spring Sts.	275	2.50-3.00	3 00-4.00	3.50-6.00	
SENECA 361 E. Broad St.	250	2.50-3.50	3.75-5.00	5.00-5 50	3.75 to 8.00 (Single) 5.50 to 10.00 (Double)
SOUTHERN High and Main Sts.	250	2.00-3.00	3.00-4.50	4.00-4.50	
VIRGINIA Third and Gay Sts.	150	2.20 and up	3.30 and up	4.40 and up	
BROAD-LINCOLN 631 E. Broad St.	140	2.00 and up plus 10%	3.00 and up plus 10%	4.50 and up plus 10%	3.50 and up plus 10%

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager____________________Hotel, Columbus, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, April 28-30, 1942, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:__________

☐ Twin Bed Room with bath ☐ Suite

Arriving April________at________A.M.________P.M.

PLEASE VERIFY MY RESERVATION.

Name______________________________

Address______________________________

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Ninety-Sixth Annual Meeting

The Ohio State Medical Association

Convention Information and Official Program

TIME AND PLACE—Tuesday, Wednesday and Thursday, April 28, 29, and 30, 1942, The Neil House, Columbus, Ohio.

REGISTRATION—Registration Headquarters, Junior Ballroom, Mezzanine Floor. Open daily from 8:30 A.M. to 5:30 P.M. Admission to all sessions by badge only, secured at Registration Headquarters. Registration privileges extended to members in good standing of the Ohio State Medical Association, and physicians from other states who are members of their respective state medical societies; also medical students, interns, residents, nurses, health workers, and others belonging to scientific professions, if vouched for by a member of the Ohio State Medical Association. Each member of the Association should have his 1942 membership card available for presentation at time of registration. No registration fee.

TECHNICAL EXHIBITS—Mezzanine Lounge and Junior Ballroom. Open daily to 7 P.M. More than 50 displays of products and equipment, books, etc. See program for intermissions to permit members to view the exhibits.

EDUCATIONAL EXHIBITS—Junior Ballroom, Mezzanine Floor. Open daily to 7 P.M. Displays and demonstrations on progress in diagnosis and treatment—a visual educational program for general practitioners and specialists.

HOUSE OF DELEGATES—Century Room, Lobby Floor. Business sessions, April 28, 10 A.M., and April 29, 1:30 P.M. Admission to members only.

WOMAN'S AUXILIARY—Convention Headquarters, Deshler-Wallick Hotel, High and Broad Streets, Wednesday and Thursday, April 29 and 30. Registration, Hall of Mirrors Foyer. Registration fee, $1.00. Program elsewhere in this issue.

SPECIAL TELEPHONE SERVICE—A special telephone service for physicians attending the meeting will be maintained by the Columbus Academy of Medicine and the Columbus Bureau of Medical Economics. Those wishing to receive emergency calls while in Columbus may arrange to have such calls routed through the Academy number, ADams 8101, if they desire to do so. Prompt efforts will be made to notify the physician wanted.

SPECIAL MEETINGS—Special meetings, luncheons and dinners have been arranged by a number of special societies, alumni and fraternity groups, etc., during the three-day convention. Reference to these gatherings will be found elsewhere in this issue.

SPECIAL FEATURES—Among the special features of the 1942 meeting will be the continuous program of Medical Motion Pictures in the McKinley Room, Mezzanine Floor, and the Quiz-Discussion Sessions on Tuesday and Wednesday evenings and Thursday afternoon in which the distinguished out-of-state guest speakers and prominent Ohio physicians will participate.

ANNUAL BANQUET—Main Ballroom, Mezzanine Floor, on Thursday evening, April 30, 7 P.M. Program arranged by Columbus Academy of Medicine, featuring an address by Dr. Roderick Peattie, Ohio State University, and a special program of vocal and instrumental music.

TIME SCHEDULE—The time schedule for the three-day program will be enforced, barring unforeseen developments. Therefore, those attending should make every effort to assemble at the times indicated for the various addresses and events.

Official Program

Tuesday, April 28

10:00 A.M.

Century Room, Lobby Floor

FIRST SESSION, HOUSE OF DELEGATES

2:00 P.M.

Main Ballroom, Mezzanine Floor

FIRST GENERAL SESSION

CHEMOTHERAPY

Chester S. Keefer, M.D., Boston, Mass.,
Wade Professor of Medicine, Boston University School of Medicine.

2:30 to 3:00

SIMPLIFIED PARENTERAL FEEDING BEFORE AND AFTER OPERATION

Frederick A. Coller, M.D., Ann Arbor, Mich.,
Professor of Surgery and Chairman of Department of Surgery, University of Michigan Medical School.

3:00 to 3:30

PREPARATION OF THE PATIENT FOR ANESTHESIA

James H. Bennett, M.D., Cincinnati,
Assistant Professor of Surgery in Charge of

Anesthesia, University of Cincinnati College of Medicine.

3:30 to 4:00

INTERMISSION FOR TOUR OF EXHIBITS

4:00 to 4:30

RECENT TRENDS IN THE TREATMENT OF RHEUMATOID ARTHRITIS

Richard H. Freyberg, M.D., Ann Arbor, Mich., Assistant Professor of Internal Medicine and Director, Rackham Arthritis Research Unit, University of Michigan Medical School.

4:30 to 5:00

NEW LIGHT ON EPILEPSY AND MIGRAINE

William G. Lennox, M.D., Boston, Mass., Assistant Professor of Neurology, Harvard University Medical School.

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Tuesday, April 28

8:00 P.M.

QUIZ-DISCUSSION SESSIONS

CHEMOTHERAPY

Main Ballroom, Mezzanine Floor

Moderator: Chester S. Keefer, M.D., Boston, Mass.

Conferees: Richard H. Freyberg, M.D., Ann Arbor, Mich.; Morton Hamburger, Jr., M.D., Cincinnati; Curtis F. Garvin, M.D., Cleveland; Alson E. Braley, M.D., New York City.

PREOPERATIVE AND POSTOPERATIVE CARE

McKinley Room, Mezzanine Floor

Moderator: George M. Curtis, M.D., Columbus.

Conferees: Frederick A. Coller, M.D., Ann Arbor, Mich.; James H. Bennett, M.D., Cincinnati; Robert L. Faulkner, M.D., Cleveland; B. B. Sankey, M.D., East Cleveland.

NERVOUS AND MENTAL DISEASES

Colonial Room, Mezzanine Floor

Moderator: George T. Harding, M.D., Columbus.

Conferees: William G. Lennox, M.D., Boston, Mass.; Louis J. Karnosh, M.D., Cleveland; Charles D. Aring, M.D., Cincinnati.

Wednesday, April 29

9:30 A.M.

Main Ballroom, Mezzanine Floor

SECTION ON SURGERY

Robt. T. Allison, Jr., M.D., Akron .... Chairman
Roy D. Arn, M.D., Dayton .... Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

PYELOGRAPHY IN PATIENTS WITH LARGE ABDOMINAL MASSES (A DIFFERENTIAL DIAGNOSTIC AID)

E. A. Ockuly, M.D., Toledo.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

CLINICAL APPLICATIONS OF PLASMA

Wm. H. Falor, M.D., Akron.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

TUMORS OF THE MEDIASTINUM

S. O. Freedlander, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE USE OF ESTROGENS IN THE TREATMENT OF FUNCTIONAL (VASOMOTOR) DISTURBANCES IN THE PERIPHERAL ARTERIAL TREE

Edward J. McGrath, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

MANAGEMENT OF ACUTE INFECTIONS OF THE HAND

Vinton E. Siler, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Wednesday April 29

9:30 A.M.

Century Room, Lobby Floor

SECTION ON PEDIATRICS

Edward A. Wagner, M.D., Cincinnati .... Chairman
Lloyd K. Felter, M.D., Cincinnati .... Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

POLIOMYELITIS AND TONSILLECTOMY

Carl Krill, M.D., Akron, and John A. Toomey, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

INFLUENZAL MENINGITIS; ITS PAST AND PRESENT TREATMENT

Aaron Schwinger, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

EXPERIENCES WITH THE PARENTERAL ADMINISTRATION OF VITAMIN D_3

H. J. Gerstenberger, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

PROGRAM SYNOPSIS

HOUR	TUESDAY, APRIL 28	WEDNESDAY, APRIL 29	THURSDAY, APRIL 30
A.M. 9:30		**Section on Surgery** Main Ballroom, Mezzanine Floor **Section on Pediatrics** Century Room, Lobby Floor **Section on Eye, Ear, Nose and Throat** Colonial Room, Mezzanine Floor	**Section on Medicine** Main Ballroom, Mezzanine Floor **Section on Obstetrics and Gynecology** Century Room, Lobby Floor **Section on Nervous and Mental Diseases** Colonial Room, Mezzanine Floor
10:00	**House of Delegates** Century Room, Lobby Floor		
P.M. 1:30		**House of Delegates** Century Room, Lobby Floor	
2:00	**First General Session** Main Ballroom, Mezzanine Floor	**Second General Session** Main Ballroom, Mezzanine Floor	**Third General Session** Main Ballroom, Mezzanine Floor
4:00			**Quiz-Discussion Session**
7:00			**Annual Banquet** Main Ballroom, Mezzanine Floor
8:00	**Quiz-Discussion Sessions**	**Quiz-Discussion Sessions**	

SEE PAGE 361 FOR SYNOPSIS OF QUIZ-DISCUSSION SESSIONS
EDUCATIONAL EXHIBITS—Junior Ballroom, See Page 364
TECHNICAL EXHIBITS—Mezzanine Lounge and Junior Ballroom, See Page 364
MOTION PICTURE PROGRAM—McKinley Room, Mezzanine Floor, See Page 363

11:00 to 11:25

THE COMMON CONDITIONS OF THE HIP IN CHILDHOOD

Dudley M. Stewart, M.D., Toledo.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 12:05

ASSESSING THE PHYSICAL CONDITION OF CHILDREN

Norman C. Wetzel, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

12:05 to 12:15

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Wednesday, April 29

9:30 A.M.

Colonial Room, Mezzanine Floor

SECTION ON EYE, EAR, NOSE AND THROAT

Albert D. Frost, M.D., Columbus	Chairman
W. H. Evans, M.D., Youngstown	Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

ETIOLOGY AND TREATMENT OF UVEITIS

Albert L. Brown, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

RATIONAL APPROACH IN OSTEOMYELITIS OF THE FRONTAL BONE CAUSED BY SINUSITIS

Russel G. Means, M.D., Columbus.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

END RESULTS IN OCULAR MUSCLE SURGERY

Albert D. Ruedemann, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE TREATMENT OF THE ALLERGIC NOSE, WITH REPORT OF CASES

Edward King, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:55

SULFONAMIDES IN THE TREATMENT OF OCULAR INFECTIONS

Alson E. Braley, M.D., New York, N. Y.,
Assistant Professor, Columbia University College of Physicians and Surgeons.

11:55 to 12:05

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Wednesday, April 29

1:30 P.M.

Century Room, Lobby Floor

SECOND AND FINAL SESSION, HOUSE OF DELEGATES

2:00 P.M.

Main Ballroom, Mezzanine Floor

SECOND GENERAL SESSION

LESSONS IN PUBLIC HEALTH FROM WARTIME ENGLAND

N. Paul Hudson, M.D., Columbus,
Chairman, Department of Bacteriology, Ohio State University College of Medicine.

2:30 to 3:00

HYPERTENSION: SOME RECENT ADVANCES

Tinsley R. Harrison, M.D., Winston-Salem, N.C.,
Professor of Medicine, Wake Forest College School of Medical Sciences.

3:00 to 3:30

DEFICIENCY DISEASES

M. A. Blankenhorn, M.D., Cincinnati,
Professor of Medicine, University of Cincinnati College of Medicine.

3:30 to 4:00

INTERMISSION FOR TOUR OF EXHIBITS

4:00 to 4:30

HEALTH AND NATIONAL DEFENSE

Col. L. G. Rowntree, M.C., U.S.A., Washington, D.C.,
Chief of Medical Division, National Selective Service System, and Director of Philadelphia Institute of Medical Research.

4:30 to 5:00

FACTORS IN AGEING OF THE HUMAN BODY

E. V. Cowdry, Ph.D., St. Louis, Mo.,
Professor of Anatomy, Washington University School of Medicine.

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Wednesday, April 29

8:00 P.M.

QUIZ-DISCUSSION SESSIONS

NUTRITION AND NATIONAL DEFENSE

McKinley Room, Mezzanine Floor

Moderator: Jonathan Forman, M.D., Columbus.
Conferees: Col. L. G. Rowntree, M.C., U.S.A., Washington, D.C.; E. V. Cowdry, Ph.D., St. Louis, Mo.; N. Paul Hudson, M.D., Columbus; Stanley D. Simon, M.D., Cincinnati.

TECHNICAL PHASES AND CLINICAL APPLICATIONS OF PLASMA TRANSFUSIONS

Colonial Room, Mezzanine Floor

Moderator: Paul I. Hoxworth, M.D., Cincinnati.
Conferees: Wm. H. Falor, M.D., Akron; John A. Rogers, M.D., Youngstown.

GENERAL MEDICAL PROBLEMS

Main Ballroom, Mezzanine Floor

Moderator: Roy W. Scott, M.D., Cleveland.
Conferees: Tinsley R. Harrison, M.D., Winston-Salem, N.C.; M. A. Blankenhorn, M.D., Cincinnati; J. Harold Kotte, M.D., Cincinnati.

Thursday, April 30

9:30 A.M.

Main Ballroom, Mezzanine Floor

SECTION ON MEDICINE

John L. Stifel, M.D., Toledo .... Chairman
James M. Ruegsegger, M.D., Cincinnati .... Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

CALCIFIC AORTIC STENOSIS

Stanley D. Simon, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

SYNOPSIS OF QUIZ-DISCUSSION SESSIONS

TUESDAY, APRIL 28, 8:00 P.M.

CHEMOTHERAPY	PREOPERATIVE AND POSTOPERATIVE CARE	NERVOUS AND MENTAL DISEASES
MAIN BALLROOM, MEZZANINE FLOOR	**McKINLEY ROOM, MEZZANINE FLOOR**	**COLONIAL ROOM, MEZZANINE FLOOR**
Moderator: CHESTER S. KEEFER, M.D., Boston, Mass.	*Moderator:* GEORGE M. CURTIS, M.D., Columbus	*Moderator:* GEORGE T. HARDING, M.D., Columbus
Conferees: RICHARD H. FREYBERG, M.D., Ann Arbor, Mich. MORTON HAMBURGER, JR., M.D., Cincinnati CURTIS F. GARVIN, M.D., Cleveland ALSON E. BRALEY, M.D., New York City	*Conferees:* FREDERICK A. COLLER, M.D., Ann Arbor, Mich. JAMES H. BENNETT, M.D., Cincinnati ROBERT L. FAULKNER, M.D., Cleveland B. B. SANKEY, M.D., East Cleveland	*Conferees:* WILLIAM G. LENNOX, M.D., Boston, Mass. LOUIS J. KARNOSH, M.D., Cleveland CHARLES D. ARING, M.D., Cincinnati

WEDNESDAY, APRIL 29, 8:00 P.M.

NUTRITION AND NATIONAL DEFENSE	TECHNICAL PHASES AND CLINICAL APPLICATIONS OF PLASMA TRANSFUSIONS	GENERAL MEDICAL PROBLEMS
McKINLEY ROOM, MEZZANINE FLOOR	**COLONIAL ROOM, MEZZANINE FLOOR**	**MAIN BALLROOM, MEZZANINE FLOOR**
Moderator: JONATHAN FORMAN, M.D., Columbus	*Moderator:* PAUL I. HOXWORTH, M.D., Cincinnati	*Moderator:* ROY W. SCOTT, M.D., Cleveland
Conferees: COL. L. G. ROWNTREE, M.C., U.S.A. Washington, D.C. E. V. COWDRY, Ph.D., St. Louis, Mo. N. PAUL HUDSON, M.D., Columbus STANLEY D. SIMON, M.D., Cincinnati	*Conferees:* WM. H. FALOR, M.D., Akron JOHN A. ROGERS, M.D., Youngstown	*Conferees:* TINSLEY R. HARRISON, M.D., Winston-Salem, N.C. M. A. BLANKENHORN, M.D., Cincinnati J. HAROLD KOTTE, M.D., Cincinnati

THURSDAY, APRIL 30, 4:00 P.M.

	PHYSIOTHERAPY, INCLUDING X-RAY, RADIUM AND RADIO-ACTIVE ISOTOPES	
	COLONIAL ROOM, MEZZANINE FLOOR	
	Moderator: MERRILL C. SOSMAN, M.D., Boston, Mass.	
	Conferees: JOHN H. LAWRENCE, M.D., Berkeley, Calif. FRANK H. KRUSEN, M.D., Rochester, Minn. H. WORLEY KENDELL, M.D., Dayton	

10:10 to 10:35

TREATMENT OF ARTERIAL HYPERTENSION WITH POTASSIUM THIOCYANATE

J. Harold Kotte, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

INFECTIOUS MONONUCLEOSIS

Harold S. Schiro, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

WEIL'S DISEASE

William F. Ashe, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

IMMUNOLOGICAL STUDIES IN HUMAN INFLUENZA VIRUS AND HEMOLYTIC STREPTOCOCCUS INFECTIONS

Oram C. Woolpert, M.D., Henry E. Wilson, M.D., Charles A. Doan, M.D., John Schwab, and Samuel Saslaw, Departments of Bacteriology and Medicine, Ohio State University, Columbus.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Thursday, April 30

9:30 A.M.

Century Room, Lobby Floor

SECTION ON OBSTETRICS AND GYNECOLOGY

Charles W. Pavey, M.D., Columbus.........Chairman
Tom F. Lewis, M.D., Columbus..................Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

THE CONTROL OF IMPETIGO IN THE NEWBORN

J. K. Hoerner, M.D., Dayton.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

CLINICAL USE OF STILBESTROL

Zeph J. R. Hollenbeck, M.D., and Philip J. Reel, M.D., Columbus.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

THE PATHOLOGIC INTERPRETATION OF CURETTINGS

Lester J. Bossert, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

ANALGESIA IN OBSTETRICS

Dana W. Cox, M.D., Columbus.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

PESSARIES IN OFFICE PRACTICE

William H. Weir, M.D., Cleveland.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Thursday, April 30

9:30 A.M.

Colonial Room, Mezzanine Floor

SECTION ON NERVOUS AND MENTAL DISEASES

George T. Harding, M.D., Columbus.......Chairman
Howard D. Fabing, M.D., Cincinnati.......Secretary

Minutes Business
Selection of Nominating Committee

9:45 to 10:10

ADAPTATION OF THE CENTRAL NERVOUS SYSTEM TO VARYING CONCENTRATIONS OF ALCOHOL IN THE BLOOD

Philip Piker, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

THE STRUCTURAL BASIS OF EMOTION

A. R. Vonderahe, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

SCHIZOPHRENIC REACTION-TYPES SIMULATING THYROID DISEASE

J. Fremont Bateman, M.D., Columbus.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

POLYNEURITIS

Charles D. Aring, M.D., Cincinnati.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

COMBINED ARTIFICIAL FEVER-CHEMOTHERAPY IN THE MANAGEMENT OF NEUROSYPHILIS: A SUMMARY OF TEN YEARS OF EXPERIENCE

H. Worley Kendell, M.D., Walter M. Simpson, M.D., and Donald L. Rose, M.D., Dayton.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers

ADJOURNMENT FOR INSPECTION OF EXHIBITS

Thursday, April 30

2:00 P.M.

Main Ballroom, Mezzanine Floor

THIRD GENERAL SESSION

PHYSICAL THERAPY IN GENERAL PRACTICE

Frank H. Krusen, M.D., Rochester, Minn., Professor of Physical Medicine, The Mayo Foundation, University of Minnesota Medical School.

2:30 to 3:00

OBSERVATIONS ON CURABLE HEART DISEASE

Merrill C. Sosman, M.D., Boston, Mass., Clinical Professor of Roentgenology, Harvard University Medical School.

3:00 to 3:30

THE CLINICAL APPLICATIONS OF ARTIFICIAL RADIOACTIVITY

John H. Lawrence, M.D., Berkeley, Calif., Director of Medical Research, Crocker Radiation Laboratory, University of California Medical School.

4:00 P.M.

QUIZ-DISCUSSION SESSION

PHYSIOTHERAPY, INCLUDING X-RAY, RADIUM AND RADIOACTIVE ISOTOPES

Colonial Room, Mezzanine Floor

Moderator: Merrill C. Sosman, M.D., Boston, Mass.

Conferees: John H. Lawrence, M.D., Berkeley, Calif.; Frank H. Krusen, M.D., Rochester, Minn.; H. Worley Kendell, M.D., Dayton.

Thursday, April 30

7:00 P.M.

Main Ballroom, Mezzanine Floor

ANNUAL BANQUET

Introduction of Incoming President, Edward J. McCormick, M.D., Toledo, and the new President-Elect.

Presentation of Past-President's Gavel to Retiring President, William M. Skipp, M.D., Youngstown, to Harry V. Paryzek, M.D., Cleveland.

Musical Program:
- Vocal selections by Thomas Dickens, Columbus baritone.
- Instrumental selections by Ohio State University String Trio.
- Selections by Columbus Boys' Choir.

Address: "The Significance and Limitations of Geo-Politics", Dr. Roderick Peattie, internationally-known geographer and author, and professor of geography, Ohio State University.

Continuous Program of Medical Motion Pictures

McKinley Room, Mezzanine Floor

LESIONS OF THE BREAST

Albert F. Tyler, M.D., and Francis L. Simonds, M.D., Omaha, Nebr.

THE RED CROSS BLOOD TRANSFUSION SERVICE

Paul I. Hoxworth, M.D., Cincinnati.

POST-ENCEPHALITIC PARKINSONISM

Stanley M. Dillenberg, M.D., and Josephine B. Neal, M.D., Welfare Hospital, New York. N.Y. (Lederle Laboratories, Inc., New York, N.Y.)

KODACHROME CINEMATOGRAPHIC RECORD OF RETICULO-ENDOTHELIAL CELL PHAGOCYTOSIS OF AZO DYE ANTIGEN WITH ANTI-BODY FORMATION

Ben C. Houghton, M.D., Department of Medicine, Ohio State University, Columbus.

THE TREATMENT OF EMPYEMA

Leonard F. Bush, M.D., Department of Surgery, The George F. Geisinger Memorial Hospital, Danville, Pa.

THE TREATMENT OF FRACTURED HIP

Leonard F. Bush, M.D., Department of Surgery, The George F. Geisinger Memorial Hospital, Danville, Pa.

INGUINAL HERNIOTOMY

Howard Lavender, M.D., Kalamazoo, Mich.

HERNIA REPAIR WITH AUTOGENOUS LIVING FASCIA

Earl J. Boehme, M.D., Minneapolis, Minn.

PLASTIC PROCEDURE, INCLUDING FULL THICKNESS SKIN GRAFTS FOR RELIEF OF CARCINOMA OF THE HAND

William E. Browne, M.D., Boston, Mass. (Davis & Geck, Brooklyn, N.Y.)

PURPOSEFUL SPLINTING FOLLOWING INJURIES OF THE HAND

Sumner L. Koch, M.D., Michael L. Mason, M.D., and Harvey S. Allen, M.D., Chicago, Ill. (Davis & Geck, Brooklyn, N.Y.)

CORRECTION OF NASAL DEFORMITIES

James Barrett Brown, M.D., and Frank McDowell, M.D., St. Louis, Mo. (Davis & Geck, Brooklyn, N.Y.)

SUBTOTAL GASTRECTOMY FOR PERFORATING DUODENAL ULCER

The Lahey Clinic, Boston, Mass. (Davis & Geck, Brooklyn, N.Y.)

ABDOMINAL COMPLETE HYSTERECTOMY FOR FIBROIDS

Arthur H. Curtis, M.D., Northwestern University Medical School, Chicago, Ill. (Davis & Geck, Brooklyn, N.Y.)

VAGINAL REPAIR OF CYSTOCELE AND RECTOCELE

Arthur H. Curtis, M.D., Northwestern University Medical School, Chicago, Ill. (Davis & Geck, Brooklyn, N.Y.)

PROTRUDED INTERVERTEBRAL DISK

J. Grafton Love, M.D., Mayo Clinic, Rochester, Minn.

EMERGENCY TRACTION FOR SAFE TRANSPORTATION OF FRACTURES OF THE LONG BONES (Demonstrating Keller-Blake and Murray-Jones Splints)

Fracture Clinic, Massachusetts General Hospital, Boston.

FIRST AID IN TRANSPORTATION OF FRACTURES OF THE LEG, SPINE AND ARM (Demonstrating Substitute Method When Murray-Jones and Kellar-Blake Splints Are Not Available)

Fracture Clinic, Massachusetts General Hospital, Boston.

ORTHOPTIC TRAINING ROUTINE IN THE DEPARTMENT OF MOTOR ANOMALIES, NEW YORK EYE AND EAR INFIRMARY

Conrad Berens, M.D., New York, N.Y.

TREATMENT OF TRAUMATIC INJURIES OF THE FACE

Gordon B. New, M.D., and John B. Erich, M.D., Mayo Clinic, Rochester, Minn.

CARCINOMA OF BREAST. RADICAL MASTECTOMY. TRANSVERSE INCISION

Stuart W. Harrington, M.D., Mayo Clinic, Rochester, Minn.

THYROID SURGERY

William M. Skipp, M.D., Youngstown.

GENITO-URINARY SURGERY FOR THE GENERAL PRACTITIONER (Suprapubic Cystotomy, Circumcision in the Adult, Hydrocelectomy, Repair of Ruptured Bladder)

Roger W. Barnes, M.D., Los Angeles, Calif.

THE FORCEPS OPERATION AND EPISIOTOMY

Joseph B. DeLee, M.D., Chicago, Ill.

MID-FORCEPS DELIVERY. INDICATIONS AND TECHNIC FOR THE APPLICATIONS OF FORCEPS CARRIED THROUGH ALL THE VARIOUS STAGES OF DELIVERY

Garwood C. Richardson, M.D., Chicago, Ill.

DERMATOSES OF INDUSTRIAL WORKERS

John G. Downing, M.D., Boston, Mass. (Harvard Film Service, Harvard University, Boston, Mass.)

TREATMENT OF BURNS

Roy D. McClure, M.D., C. R. Lam, M.D., and H. N. Harkins, M.D., Henry Ford Hospital, Detroit, Mich.

DIAGNOSTIC PROCEDURES IN TUBERCULOSIS

Ohio Public Health Association, Columbus.

SYPHILIS: (1) THE DIAGNOSIS OF EARLY SYPHILIS; (2) THE DIAGNOSIS OF LATE SYPHILIS; (3) THE MANAGEMENT OF SYPHILIS

U.S. Public Health Service, Washington, D.C. (Ohio Department of Health.)

Educational and Technical Exhibits

Educational Exhibits

Junior Ballroom, Mezzanine Floor

Open Daily to 7 P.M.

PLETHYSMOGRAPHIC STUDIES OF PERIPHERAL BLOOD FLOW IN MAN

David I. Abramson, M.D., Kamillo Flachs, and the May Institute for Medical Research, Jewish Hospital, Cincinnati.

NATURAL AND ACQUIRED IMMUNITY REACTIONS TO INFLUENZA VIRUS AND HEMOLYTIC STREPTOCOCCUS INFECTIONS

Oram C. Woolpert, M.D., Charles A. Doan, M.D., Henry E. Wilson, M.D., John Schwab, and Samuel Saslaw, Departments of Bacteriology and Medicine, Ohio State University, Columbus.

THE ORGANIZATION OF A PLASMA BANK

Wm. H. Falor, M.D., and Akron City Hospital, Akron.

COMMON NAIL DISEASES

Lester Hollander, M.D., Chas. L. Schmitt, M.D., G. F. Kowallis, M.D., and the Pittsburgh Skin and Cancer Foundation, Pittsburgh, Pa.

CARCINOMA OF THE RECTUM

Thomas E. Jones, M.D., and the Cleveland Clinic, Cleveland.

CARCINOMA OF LARYNX

J. W. McCall, M.D., Fred S. Gardner, M.D., and St. Luke's Hospital, Cleveland.

BONE TUMORS

B. H. Nichols, M.D., and the Cleveland Clinic, Cleveland.

GRANULOMATOUS LESIONS PRODUCED BY CRYSTALS OF MAGNESIUM

Fred M. Douglass, M.D., Thomas L. Ramsey, M.D., and Departments of Surgery and Pathology, St. Vincent's Hospital, Toledo.

COMMON HIP CONDITIONS IN CHILDHOOD

Dudley M. Stewart, M.D., Murray E. Goodrich, M.D., Willis S. Peck, M.D., and Toledo Clinic, Toledo.

TANNIC ACID-SILVER NITRATE TREATMENT OF BURNS

D. M. Glover, M.D., A. E. Sydow, M.D., and St. Luke's and City Hospitals, Cleveland.

CONGENITAL MALFORMATIONS INDUCED IN RATS BY MATERNAL NUTRITIONAL DEFICIENCY

Josef Warkany, M.D., and Rose C. Nelson, Ph.D., Children's Hospital Research Foundation, and the Department of Pediatrics, University of Cincinnati, Cincinnati.

HEART AND ATHLETICS

John W. Wilce, M.D., Ohio State University, Columbus.

A STUDY OF THE EYES IN EXPERIMENTAL HYPERTENSION

Harry Goldblatt, M.D., John E. L. Keyes, M.D., and Wm. B. Hatcher, M.D., Institute of Pathology, Western Reserve University.

NATIONAL SAFETY—NATIONAL DEFENSE

Metropolitan Life Insurance Company, New York, N.Y.

Technical Exhibitors

Mezzanine Lounge and Junior Ballroom

Open Daily to 7 P.M.

	Booth
Abbott Laboratories North Chicago, Ill.	56
American Medical Business Bureau, Inc. Ft. Wayne, Ind.	5
American Optical Company Chicago and Columbus	26
Baker Laboratories Cleveland, Ohio	30
Borden Company, The New York, N.Y.	18
Bowman Bros. Drug Company Canton, Ohio	46
Burke X-Ray Sales Company Cleveland, Ohio	38
Burroughs Wellcome & Co., U.S.A., Inc. New York, N.Y.	15

Cameron Surgical Specialty Co.	Chicago, Ill.	50
Chemico Laboratories	Indianapolis, Ind.	7
Ciba Pharmaceutical Products, Inc.	Summit, N.J.	53
Columbus Hospital Supply Co.	Columbus, Ohio	45
Davies, Rose & Co., Ltd.	Boston, Mass.	23
Davis Company, R. B.	Hoboken, N.J.	35
Electro-Medical Equipment Co.	Cleveland, Ohio	25
Falk, W. E.—Medical Books	Cincinnati, Ohio	32
General Electric X-Ray Corp.	Chicago, Ill.	55
Gerber Products Company	Fremont, Mich.	1
Hansen's Laboratory, Inc., Chr.	Little Falls, N.Y.	12
Heinz Company, H. J.	Pittsburgh, Pa.	14
Holland-Rantos Co., Inc.	New York, N.Y.	33
Jones Metabolism Equipment Co.	Chicago, Ill.	27
Lederle Laboratories, Inc.	Chicago and New York	48
Liebel-Flarsheim Co.	Cincinnati, Ohio	44
Lilly & Company, Eli	Indianapolis, Ind.	31
Lippincott Co., J. B.	Philadelphia, Pa.	36
Mead Johnson & Co.	Evansville, Ind.	54
Medical Protective Co.	Ft. Wayne, Ind.	4
Mellin's Food Company	Boston, Mass.	11
Mennen Company, The	Newark, N.J.	22
Merrell Company, Wm. S.	Cincinnati, Ohio	49
M & R Dietetic Laboratories	Columbus, Ohio	37
Mosby Company, C. V.	St. Louis, Mo.	16
Nestles' Milk Products, Inc.	New York, N.Y.	41
Parke, Davis & Company	Detroit, Michigan	51
Pet Milk Sales Corporation	New York, N. Y.	2
Petrogalar Laboratories	Chicago, Ill.	24
Pfaffman Company	Cleveland, Ohio	10
Philip Morris & Co., Ltd.	New York, N.Y.	52
Picker X-Ray Corporation	New York, N.Y.	8-9
Safety First Supply Co.	Pittsburgh, Pa.	42
Saunders Company, W. B.	Philadelphia, Pa.	3
S. M. A. Corporation	Chicago, Ill.	20
Smith, Kline & French Laboratories	Philadelphia, Pa.	13
Squibb and Sons, E. R.	New York, N.Y.	34
Wagner's Sons Co., W. T.	Cincinnati, Ohio	17
Wendt-Bristol Company	Columbus, Ohio	6
White-Haines Optical Co.	Columbus, Ohio	47
Winthrop Chemical Co., Inc.	New York, N.Y.	28
Wyeth & Bro., Inc., John	Philadelphia, Pa.	29

Woman's Auxiliary Meeting, April 29-30, Columbus

PLACE—Deshler-Wallick Hotel

CONVENTION HEADQUARTERS
Wallick Suite, Room 1648

Mrs. George O. Hoskins, President of Columbus Auxiliary, in charge.

CONVENTION COMMITTEE

Mrs. Ralph W. Hoffman, General Chairman; Mrs. H. M. Clodfelter and Mrs. J. W. Wilce.

CONVENTION SUB-COMMITTEES

Exhibits—Mrs. R. S. Fidler, President-Elect of Columbus Auxiliary, in charge.

Reception and Bridge—Mrs. H. M. Clodfelter, assisted by District Directors.

Publicity—Mrs. James R. Warren.

Lazarus Style Show—Mrs. A. A. Ahn.

Luncheons—Mrs. M. E. Millhon.

Flowers—Mrs. Myron D. Miller.

Group Dinners—Mrs. Harry E. LeFever.

REGISTRATION—Entrance of Hall of Mirrors, Wallick Addition. (9:00 A.M. Daily). Registration Fee, $1.00; Luncheons, $1.00; Dinners, $1.50.

EXHIBITS—Parlor G, Wallick Addition.

PROGRAM

Wednesday, April 29

9:00 A.M.

Hall of Mirrors

PRE-CONVENTION BOARD MEETING

12:00 Noon

Hall of Mirrors

LUNCHEON

ADDRESS: "Medicine of the Past, Present and Future", E. J. McCormick, M.D., Toledo, President-Elect, Ohio State Medical Association.

2:00 P.M.

Hall of Mirrors

BUSINESS SESSION, HOUSE OF DELEGATES

Reports of Officers, District Directors and Committee Chairmen.

6:30 P.M.

SIX GROUP DINNERS

PRESIDENTS—Mrs. W. W. H. Curtiss, Dennison, presiding.

ORGANIZATION—Mrs. Dale P. Osborn, Cincinnati, presiding.

FINANCE AND PROJECTS—Mrs. George Wilcoxen, Alliance, and Mrs. C. I. Stafford, Oxford, presiding.

PROGRAM—Mrs. M. E. Kishman, Lorain, presiding.

PUBLICITY—Mrs. H. A. Coleman, New Philadelphia, and Mrs. A. A. Brindley, Toledo, presiding.

PUBLIC RELATIONS—Mrs. H. E. Weissenbarger, Lima, and Mrs. William Hoyt, Hillsboro, presiding.

9:00 P.M.

Hall of Mirrors

RECEPTION FOR PRESIDENT AND PRESIDENT-ELECT AND BRIDGE

HOSTESSES: District Directors. Mrs. H. M. Clodfelter, Vice-President, Columbus, in charge.

Thursday, April 30

9:30 A.M.

Hall of Mirrors

BUSINESS SESSION, HOUSE OF DELEGATES

Election and Installation of Officers

12:30 P.M.

Hall of Mirrors

LUNCHEON

ADDRESS: "The War and Your Pocketbook", Dr. Viva Booth, Director of School of Business Administration, Ohio State University.

3:00 P.M.

Style Show in Auditorium of the F. and R. Lazarus and Company. Mrs. A. A. Ahn, Columbus, in charge.

4:30 P.M.

Wallick Suite, Room 1648

POST-CONVENTION BOARD MEETING

7:00 P.M.

Main Ballroom, Neil House

Annual Banquet, Ohio State Medical Association.

Meetings of Special Societies and Groups

Annual Meeting of Ohio Section American College of Chest Physicians

Wednesday, April 29

NEIL HOUSE

12 Noon

LUNCHEON

BUSINESS SESSION—Election of officers.

ROUND-TABLE DISCUSSIONS—Discussions of X-ray plates of the chest and presentation of interesting chest films.

Officers of the section who are in charge of the program are: Dr. Louis Mark, Columbus, president and governor of Ohio, American College of Chest Physicians; Dr. John Skavlem, Cincinnati, vice president; Dr. J. B. Stocklen, Warrensville, secretary-treasurer, and Dr. Joseph C. Placak, Cleveland, district regent, American College of Chest Physicians.

Joint Meeting of The Ohio Society of Anesthetists and The Ohio State Section of the American Society of Anesthetists. Inc.

Tuesday, April 30

Red Room, Mezzanine Floor

Neil House

1:30 P.M.

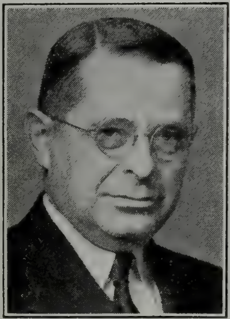
INTRAVENOUS ANESTHESIA

Norris E. Lenahan, M.D., Anesthetist to White Cross Hospital and Clinical Assistant, Ohio State University College of Medicine.

Dr. Peattie, Authority on Geo-Politics, Chosen Banquet Speaker; Excellent Musical Program Also Arranged

GUEST speaker at the Annual Banquet which will bring the Ninety-Sixth Annual Meeting of the Ohio State Medical Association to a fitting climax on the evening of April 30 in the Main Ballroom of the Neil House, Columbus, will be Dr. Roderick Peattie, internationally-known geographer, professor of geography at Ohio State University and distinguished author.

Dr. Peattie will speak on the subject, "The Significance and Limitations of Geo-politics". This timely subject which pertains to those factors which have played, and are playing, such a vital part in the present international conflict is one on which Dr. Peattie is an authority. One of his best known recent books is, "Geography in Human Destiny".


DR. RODERICK PEATTIE

A native of Omaha and a member of a family which has had a prominent place in "Who's Who", Dr. Peattie has been a member of the faculty at Ohio State University since 1920. He holds a bachelor's degree from the University of Chicago, a doctor of philosophy degree from Harvard University, and has held teaching posts at Chicago, Radcliffe, Harvard and Williams. During the first World War he was an instructor in the Army Engineering School and saw service in France. Dr. Peattie has studied and traveled in a dozen European countries which has given him a keen and intimate knowledge of social, economic and political factors and developments abroad, many of which have contributed to the second World War.

Recently, Dr. Peattie has been speaking at army training camps on the subject of morale and he has intimated that he expects to weave into his banquet address some suggestions about the art of living in war time.

An excellent musical program also has been arranged by the Banquet Committee of the Columbus Academy of Medicine which is the official host for this outstanding social event of the Annual Meeting. This will include vocal selections by Thomas Dickens, popular Columbus baritone, members of the talented Columbus Boy's Choir, one of the outstanding groups of its kind in the country, and instrumental selections by the Ohio State University String Trio.

Tickets for the banquet will be on sale near the Registration Headquarters during the meeting. Members should come prepared to remain for the banquet which will start promptly at 7 p.m. on Thursday, April 30.

Members of the Columbus committee which has arranged this splendid program and will be in charge of banquet details are: Drs. Edwin J. Stedem, chairman; A. B. Johnson, H. M. Clodfelter, Link M. Murphy, Huston F. Fulton, Ben C. Houghton, Gilman D. Kirk, Philip T. Knies, R. W. Kissane, Robert C. Kirk, W. P. Smith, P. B. Wiltberger, and Capt. J. E. Brown, Jr.

2:00 P.M.

SHOCK

Harold D. Green, M.D., Associate Professor of Physiology, Western Reserve University Medical School.

2:30 P.M.

THE ANESTHETIC MANAGEMENT FOR DRAINAGE OF ABSCESS OF THE SUBMANDIBULAR SPACE

James H. Bennett, M.D., Assistant Professor of Surgery in Charge of Anesthesia, University of Cincinnati Medical College.

3:00 P.M.

CASUALTY ANESTHESIA IN ENGLAND

K. C. McCarthy, M.D., Anesthetist to Toledo, Mercy, Flower and Lucas County Hospitals, Toledo.

3:30 P.M.

ANESTHESIA IN THYROID SURGERY

John K. Potter, M.D., and R. M. Crane, M.D., Department of Anesthesia, Huron Road Hospital, East Cleveland.

4:00 P.M.

THE USE OF PICROTOXIN IN BARBITURATE POISONING

A. L. Schwartz, M.D., Director of the Department of Anesthesia, Jewish Hospital, Cincinnati.

4:30 P.M.

BUSINESS SESSION

Report of Committee on Public Relations and Economics

(INCLUDING REVIEWS OF THE ACTIVITIES OF THE COMMITTEE ON MEDICAL SERVICE PLANS AND THE COMMITTEE ON POOR RELIEF)

ALTHOUGH much of the machinery of the Ohio State Medical Association has had to be geared during the past year to meet new responsibilities arising from the national crisis, there has been no curtailment in the regular activities of the Association, including that of serving as a liaison between the medical profession of the state and official or unofficial organizations and agencies which are directly or indirectly interested in medical and health questions.

The Committee on Public Relations and Economics and its sub-committees have represented The Council as reviewing or fact-finding committees, submitting recommendations from time to time on important questions of interest to physicians as a group and as individuals.

This report presents a concise review of some of the more important activities of the main committee and its sub-committees, supplementing periodic reports which have been made directly to The Council and published in *The Ohio State Medical Journal* as a part of the minutes of meetings of The Council.

Workmen's Compensation—As customary the Sub-Committee on Workmen's Compensation has had a busy year. Following are some of the specific matters considered by the committee whose recommendations have been approved by The Council:

One of the difficult questions considered by the committee and one which consisted of important legal angles was that of what constitutes assuming responsibility for a patient and whether or not a physician should expect payment for medical services rendered by an intern at a hospital when the physician did not see the patient at the time the services were rendered, although he had been consulted by telephone by such intern prior to the rendition of services. Legal opinions from competent attorneys were obtained by the committee, but such opinions were at variance. Therefore, the committee was compelled to consider the question solely from the standpoint of what is good medical practice. The committee arrived at the following decision, which subsequently was approved by The Council: "The committee does not condone the practice of treating patients in absentia, therefore it believes that a physician should not charge for such practice".

Regulation Amended—In an effort to assist the Industrial Commission in tightening up regulations to correct certain abuses, primarily the one whereby a physician would sign medical reports and fee bills for services rendered by assistants under circumstances where the services were not directly supervised by the physician submitting the reports and fee bills, or where the patient is not seen or examined by such physician, the committee, at the request of the Commission, considered changes in existing Commission regulations governing this situation. After due consideration, the committee approved the following amended regulation which subsequently was approved by The Council:

> "Fees for examination or treatment will be paid only to a practitioner duly licensed to render such treatment or make such examination, and then only when such practitioner sees and examines the patient and directly supervises or renders such treatment; provided, however, that exceptions may be made at the discretion of the Commission in the case of diagnostic X-ray pictures or laboratory services.
>
> "Payment of fees will be made only to the practitioner rendering or supervising the services, as provided above, except in the case of hospitals having contracts with the Industrial Commission. Medical reports and fee bills shall be signed in his own handwriting by the practitioner rendering the services or directly supervising the treatment and such signature also shall be typed or printed on such reports and fee bills".

Fee Schedule Changes Asked—A proposal from the Cincinnati Academy of Medicine, addressed to The Council asking the State Association to confer with the Industrial Commission on the matter of increasing medical and surgical fees for services rendered to claimants under the Workmen's Compensation Act, was given careful study. On recommendation of the committee, The Council drafted a reply to such proposal and this was sent to the Cincinnati Academy of Medicine. Such statement assured the Cincinnati Academy that the question submitted would be given thorough consideration. Also, it requested the Cincinnati Academy to make specific suggestions regarding changes in the medical and surgical fee schedule.

It was pointed out that from time to time the committee had conferred with the Commission on such matters, such conferences resulting in constructive changes in the fee schedule. Those who may be interested in reading the complete statement will find it on page 61 of the January, 1942, issue of *The Ohio State Medical Journal* as a part of the minutes of the meeting of The Council held on December 14, 1941.

Special Fee Disapproved—On recommendation of the committee, The Council approved action by the committee stating in effect that no special fee should be established by the Industrial Commission for treatment of the ear, it being pointed out that under its general rules and regulations the Commission may allow additional compensation of unusual treatment if the facts indicate, and that this regulation should be applied for otological treatments, providing proper and sufficient evidence is submitted by the physician rendering such treatments.

Entitled to Regular Fee—A question as to what fee should be paid a physician seeing a claimant for the first time in his office, in cases where the claimant had received initial treatment by an intern or resident in a hospital emergency room, was considered. The committee recommended to The Council that it in turn recommend to the Commission that when a physician sees a claimant for the first time he should be considered as eligible to receive a fee as stipulated in the fee schedule for first dressing at office or home even though the patient may have been treated prior to that time in the emergency room of a hospital by someone other than such physician. This recommendation was subsequently approved by The Council.

A similar question also was studied, relating to payment of medical fees to physicians in cases where the claimant is taken to a hospital emergency room and where subsequent services are provided by a physician in his office. The following recommendation of the committee was approved by The Council and transmitted to the Industrial Commission:

> "Whenever a claimant reports to a hospital for first aid and first aid is rendered in the hospital by a physician, other than intern or resident, the physician shall be paid for his professional services and the hospital shall be paid for the use of its facilities. If the claimant is rendered first aid in a hospital by an intern or resident, the hospital shall be paid for the use of its facilities. If the claimant subsequently is referred to another physician for treatment, such physician shall be paid at the rate allowed under the fee schedule for minor injuries, first dressing".

Ask Minimum of Paper Work—The committee also has discussed with the Industrial Commission the problem of increased paper work required of physicians and it has requested the Commission to do everything possible to keep such paper work at a minimum and not to place a greater burden of this kind on the medical profession.

Examples of coercive procedures used by some employers to force employes to go to a company-employed physician for medical services have been discussed. It is the opinion of the committee that a solution to this problem, involving the principle of free choice, is primarily one which has to be met through conferences between medical societies and employers, and medical societies and groups of employes. As the committee pointed out to The Council in a report on this question, there is no legal provision which compels an employe to accept the employer's selection of a physician unless he chooses to do so.

Industrial Health—At an early meeting the committe plans to draft a program whereby the Ohio State Medical Association may take a more active part in a study of industrial health problems of various kinds. The committee has been appointed by The Council to serve as a liaison between the State Medical Association and the American Medical Association on matters of industrial health. It is planning to invite representatives of the Council on Industrial Health of the A.M.A. to its next meeting for the purpose of advising it on this important activity. A report on developments will be submitted to The Council at the appropriate time.

Dr. Worstell Commended—During the past year, Dr. Henry P. Worstell, Supervisor of the Medical Section of the State Industrial Commission, entered active military services as a lieutenant commander in the Medical Corps of the U.S. Navy. The committee desires to take this opportunity to commend Dr. Worstell for the splendid job which he did as administrator of that important division and to wish him Godspeed as a member of the armed forces.

Services Available—Members of the Association should feel free to submit Workmen's Compensation questions to the committee through the State Headquarters Office at Columbus. These will be given prompt and earnest consideration. Also, members should make use of the investigating service on Workmen's Compensation matters, operated by the State Headquarters Office. This service has proved of great benefit to many members over a period of years. The committee and the personnel of the State Headquarters Office are in constant touch with the Commission. The present Industrial Commission has been extremely sympathetic to the views of the medical profession and it is to be hoped that this fine cooperative relationship will be maintained indefinitely.

On behalf of the entire membership, and specifically the Committee on Public Relations and Economics, of which the Committee on Workmen's Compensation is a sub-committee, it is the desire of the chairman of the Committee on Public Relations and Economics to express appreciation to the following physicians who have served so faithfully on this particular sub-committee: Dr. D. M. Glover, Cleveland; Dr. D. W. Heusinkveld, Cincinnati; Dr. Malcolm Cook, Hamilton; Dr. Robert L. Eastman, Mt. Vernon; Dr. J. Craig Bowman, Upper Sandusky; and Dr. Drew L. Davies, Columbus.

Medical Service Plans—Although up to this time no medical service plans, authorized by the State Enabling Act which became effective last August, have been organized or put into operation, substantial progress can be reported. Committees of the Cleveland Academy of Medicine, Cincinnati Academy of Medicine, Toledo Academy of Medicine, and the Mahoning County Medical Society are working on plans. Committees have been appointed by several other local medical societies to consider the feasibility of establishing medical service plans in their respective communities. Obviously, dislocations resulting from the war and the large pickup in employment, accompanied by higher wage scales, have lessened to some extent the present need and demands for plans of this kind. However, the basic need in some localities still exists and will become more apparent as time goes on. The medical profession in those communities recognizes such need, as well as the responsibility of the profession in taking the initiative in establishing plans to meet such need. Therefore, it is anticipated that concrete action in some parts of the state will be taken in the near future. We believe the profession is to be commended for approaching this question from a scientific point of view for in doing so it hopes to avoid mistakes and to benefit by the experiences of medical service plans in other states.

Committee Has Assisted—The Committee on Medical Service Plans of the State Association, working under the direction of the Committee on Public Relations and Economics, has tried to be of assistance to the local committees previously referred to and to all county medical societies desiring to give study to the whole question of prepaid medical care for those of the low-income groups.

In the Fall of 1941, the committee compiled and distributed a "Handbook on Medical Service Plans", setting forth basic principles and policies, suggestions as to proper procedure for launching a study of this question, and reference material and citations.

Valuable information and data have been obtained from the officials in charge of plans operating in other states. This material will be made available to medical societies in Ohio as soon as it can be abstracted.

Members of the committee have attended several meetings in various parts of the country where discussions of medical service plans have been held for the purpose of obtaining information which can be helpful to Ohio communities working on this project.

A number of county medical societies have been addressed by members of the committee and members of The Council who have offered suggestions as a guide to local procedure. This help is available to any county society on request.

Preliminary and incomplete plans drafted by several local medical societies have been reviewed by the committee. Some modifications have been suggested and during the next several months the committee will again review these plans, hoping to clear them so they can be submitted to local societies and then to The Council of the State Association for final approval.

Hasty Action Would Be Fatal—It should be kept in mind that this is an entirely new field so far as the medical profession of Ohio is concerned. Fatal mistakes must be avoided. No plan should be started unless it has the backing of the overwhelming majority of the physicians of the community as well as general public support. Hastily drafted plans which would be failures from the very beginning will not be approved by the committee.

Members of the committee who are devoting a lot of time and effort to this important activity and who deserve much commendation for their work to date are: Dr. John E. Rauschkolb, chairman, Cleveland; Dr. Robert C. Rothenberg, Cincinnati; Dr. G. A. Woodhouse, Pleasant Hill; Dr. Dow Allard, Portsmouth; Dr. Jonathan Forman, Columbus; and Dr. Carl R. Damron, Mansfield.

Poor Relief—In order to bring itself up to date on the situation throughout the state relating to medical programs for the needy, the Committee on Poor Relief met in late November, 1941. Information from the State Welfare Department and other sources was reviewed. It was found that in most of the rural counties medical programs for those eligible for public assistance were operating rather smoothly and the needs being met. This is not the case in some of the larger urban centers where funds are inadequate for relief activities and where, in some instances, there is a lack of cooperation between relief officials and the local medical society. The committee, if continued by the incoming President, intends to give this particular problem, i.e., that pertaining to urban communities, careful consideration during the remaining months of the year, hoping to agree on recommendations as to how it may be solved, or minimized.

Special Article Published—At the meeting referred to, the committee heard a discussion of a formula-controlled medical care plan for the needy which has been in operation in Delaware County for the greater part of two years, with the approval and cooperation of the physicians of that county. Believing that county medical societies elsewhere should know about the Delaware County program and that it might be adaptable to other sections of the state, the committee requested Dr. G. F. Moench, then health commissioner of Delaware County and consultant to the committee of the medical society which cooperated with the relief officials in operating the plan, to prepare an article for *The Ohio State Medical Journal*,, explaining the plan in detail. The article by Dr. Moench was published in the March, 1942, issue of *The Journal*, pages 267-272. Reprints have been sent to the secretary of each county medical society. Since he prepared his article, Dr. Moench has moved to Marshall, Michigan, where he is acting director of the Calhoun County Health Department, a unit of the Michigan Community Health Project of the

W. K. Kellogg Foundation. It is suggested that the appropriate committee of each county medical society study the article referred to as it may contain some ideas which could be put into effect in other communities similar in many respects to Delaware County.

Present members of the Committee on Poor Relief who are giving medical relief questions their consideration are: Dr. Walter K. Stewart, chairman, Youngstown; Dr. Fowler B. Roberts, Akron; Dr. F. S. Van Dyke, Canton; Dr. W. L. Denny, Cambridge; Dr. R. N. Whitehead, Bowling Green; Dr. E. O. Swartz, Cincinnati; Dr. Dow Allard, Portsmouth; Dr. E. B. Gillette, Toledo; Dr. R. S. Binkley, Dayton; and Dr. F. C. Callaway, Marysville.

Tuberculosis Regulations—Under provisions of a resolution adopted by the House of Delegates at the 1941 Annual Meeting in Cleveland, The Council of the State Association was instructed to make a study of the present laws and regulations relating to the control of tuberculosis and to recommend any changes which might be deemed advisable. Responsibility for this study was delegated to the Committee on Public Relations and Economics. At a recent meeting of the committee, the chairman was authorized to appoint a special sub-committee to handle this matter. The following have been appointed as members of that committee, and the committee has started its work: Dr. Howard Holmes, Chairman, Toledo; Dr. T. L. Bliss, Akron; Dr. Colin R. Clark, Youngstown; Dr. Myron D. Miller, Columbus; and Dr. G. G. Bassett, Cleveland. The State Director of Health, Dr. R. H. Markwith, and the chairman of the Committee on Public Relations and Economics are ex-officio members of the special committee.

Premarital Examination Law—At the request of the State Director of Health, Dr. Markwith, for a committee as a consultant to him on problems arising under the permarital examination law, The Council designated the Committee on Public Relations and Economics to serve in this capacity. The committee has conferred with Dr. Markwith on several occasions. At the last conference the committee, having been given authority to act, approved a set of regulations governing the approval of laboratories for the performance of serological tests as required by the premarital examination law. These rules subsequently were put into effect by Dr. Markwith. They were published in full in the March, 1942, issue of *The Ohio State Medical Journal*, page 274. Future conferences with Dr. Markwith will be held from time to time as specific questions arise. Incidentally, at this time the committee wishes to offer to Dr. Markwith its full cooperation in helping him to meet other important questions which he and his department may be called upon to consider. Director Markwith has consulted the State Association on many occasions. His department is operating efficiently and through his efforts an excellent relationship has been established between the State Department of Health and the Ohio State Medical Association.

Cooperation With Welfare Groups—On a number of occasions the committee has been called upon to advise representatives of the State Department of Welfare, other state departments, and unofficial welfare and health organizations on health and medical questions. Assistance has been given to the Division of Social Administration, State Department of Public Welfare, on health questions relating to individuals being considered as foster parents of children under the jurisdiction of the department. The committee has advised that such persons be required to undergo a physical examination, or as an alternative that they at least be requested to submit evidence that they do not have tuberculosis or syphilis in a communicable stage. Also, the committee has conferred with representatives of the Department of Education administering special schools for the handicapped and a small advisory committee of physicians has been appointed by that department on recommendation of this committee and The Council. Physicians officially representing the State Association are assisting the Ohio Welfare Conference in providing programs for the health section of that organization, such arrangement having been worked out on the recommendation of this committee. Cooperation and advice have been given to the Women's Field Army Against Cancer. These are just some of the typical examples of how the committee representing the Association has endeavored to offer medical guidance to groups and agencies of this character.

Legislation—Although there has been no session of the Ohio Legislature during the past year, the committee has kept its eye on developments at Washington. It has assisted the American Medical Association in sponsoring a corrective amendment to the Internal Revenue Act to eliminate an inequity with respect to the taxes levied on the estates of professional men. An article on this question was published in the March, 1942, issue of *The Ohio State Medical Journal*, page 276. Also, the committee has filed a protest with Congress against the enactment of a proposal which would permit chiropractors to render services to claimants under the U.S. Employees Compensation Act.

The committee wishes to call to the attention of the membership that 1942 is a general election year and that in the November election voters will be called upon to fill various state offices and to elect members of the 95th Ohio General Assembly which will meet in January, 1943. This means that the Sub-Committee on Legislation will be called upon to carry out some very important responsibilities between now and the end of the year, and at the proper time it should be given complete cooperation on the part of the members of the Association generally, specifically local legislative committees.

In conclusion, the chairman wishes to express his sincere appreciation to members of the committee for their loyalty and splendid work during the year. In addition to the President, the President-Elect, and the Past-President, and the Chairman, the personnel of the committee is as follows: Dr. H. M. Platter, Columbus; Dr. O. J. Walker, Youngstown; Dr. E. O. Swartz, Cincinnati; and Dr. Ralph M. Watkins, Cleveland.

Barney J. Hein, M.D., Toledo,
Chairman.

Medical-Pharmaceutical Conference In Cleveland on April 6

A medical-pharmaceutical conference is scheduled to be held at the Statler Hotel, Cleveland, on Monday, April 6. Arranged by a joint committee of the American Medical Association and the American Pharmaceutical Association, the meeting will take place on the day before a special meeting of the United States Pharmacopeial convention to consider a proposed constitution and by-laws.

The conference program, starting at 2 p.m., follows:

"Evolution of the Apothecary", E. B. Krumbhaar, Ralph Major or Howard Dittrick; "Trends of Pharmaceutical Practice", E. F. Kelly; "Is the Program of Pharmaceutical Education Justified?" Robert C. Wilson. Dinner 6:30 p.m. "Status of Medicine and Pharmacy in the War and After", by representatives of the Army and Navy.

Because the conference is one of great significance for the advancement of professional relationships between medicine and pharmacy, it is hoped that all those who attend the U.S.P. convention will go to Cleveland the day previous so as to participate in this meeting.

Dr. King Named to Medical Board

Dr. Dwight Jay King, Findlay, has been appointed a member of the State Medical Board for a seven-year term, beginning March 18. He succeeds Dr. Roy C. Hunter, Wapakoneta, as an Eclectic representative on the Board. A graduate of Eclectic Medical College, Cincinnati, in 1912, Dr. King has been in general practice in Findlay for nearly 30 years. He is a member of the Ohio State Medical Association and the American Medical Association.

All Attending Meeting Invited To Columbus Academy Smoker

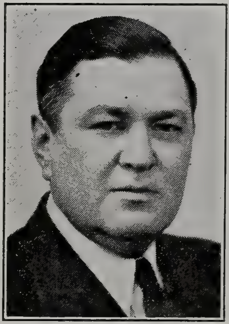
A COMPLIMENTARY smoker, with appropriate trimmings, will be held for all attending the Ninety-Sixth Annual Meeting on Tuesday evening, April 28, with the Columbus Academy of Medicine as host.

This social event will be in celebration of the 50th anniversary of the Columbus Academy of Medicine.

Complete information regarding the smoker, including an announcement of the place, will be carried in the pamphlet program to be distributed to all who register at the Annual Meeting.

Dr. Andre Named Medical Chief By Industrial Commission

Dr. Robert M. Andre, Waverly, has been appointed supervisor of the Medical Section of the State Industrial Commission, subject to the military leave of absence of Dr. H. P. Worstell, now on active duty as a lieutenant-commander in the Medical Corps of the U. S. Navy.


DR. ANDRE

A graduate of the Ohio State University College of Medicine in 1917, Dr. Andre served his internship at the Springfield City Hospital and took postgraduate training at the University of Buffalo. He has been engaged in the practice of medicine and surgery at Waverly for the past 25 years, serving as surgeon for the Norfolk & Western and Chesapeake & Ohio Railroads, and for the U. S. Veteran's Bureau. During World War I Dr. Andre was a lieutenant in the Medical Corps of the U. S. Army, serving overseas as surgeon for the 499th Aero-Squadron. He is a member of the Ohio State Medical Association and a Fellow of the American Medical Association.

Dr. Addison L. Kafauver, a member of the Medical Staff of the Industrial Commission for five years, has been promoted to the post of assistant supervisor of the Medical Section. A graduate of Western Reserve University School of Medicine in 1926, Dr. Kefauver was in general practice in Stoutsville for nine years. He is a member of the Ohio State Medical Association and the American Medical Association.

Report of Committee on Medical Preparedness

SINCE the Fall of 1940 when the Committee on Medical Preparedness was established by action of The Council, history-making events have taken place. At that time involvement of the United States in the world war seemed to many to be only a remote possibility. Today we find our country virtually fighting for its existence.

Obviously, therefore, the responsibilities of this committee have multiplied many times during the past year, especially during recent months. The committee is fully aware of the important work which it is being called upon to perform and is endeavoring to discharge its responsibilities and obligations to the medical profession and to the nation in an efficient, just and courageous manner.

Before setting forth a brief review of the committee's activities during the past year, the chairman, on behalf of the committee and personally, wishes to take this opportunity to express appreciation for the highly efficient job which has been done in practically every county by the committee on medical preparedness of the local medical society and for the cooperation which has been given to the state committee by the local committees, especially their chairmen. This local assistance has been indispensable to us in our work on a state-wide basis. We will need even more active help during the critical ensuing months as we must depend to a large extent on local advice and recommendations as a basis for decisions which we are being called upon to make almost daily.

JOURNAL ARTICLES RECOMMENDED

In a way it appears to be unnecessary for this committee to submit a report at this time, because of the excellent coverage which has been given by *The Ohio State Medical Journal* each month to the committee's activities and the numerous new developments relating to physicians and the war. It is suggested that each member take the last 10 or 12 issues of *The Ohio State Medical Journal* and re-read the articles which deal with medical preparedness, the part the medical profession is taking and will have to take in the war, the plans and programs which have been drafted to provide medical personnel for the armed forces and governmental agencies during the duration, etc. These articles actually constitute a report of the work of this committee and, in addition, present educational and factual material of great importance to every Ohio physician.

Until the Fall of 1941, the committee's chief responsibility was to assist the State Selective Service Headquarters in obtaining medical examiners for local selective service boards. A coordinated plan was adopted through which recommendations for such medical personnel were obtained by the state committee from various county committees and these recommendations in turn were transmitted to the State Selective Service Headquarters and then to Washington for official consideration and appointment. It can be said that the medical profession of the state, with only a few individual exceptions, has met this obligation in a spirit of sacrifice and patriotism. Too much credit cannot be given to the hundreds of physicians who have worked many hours examining registrants and to other physicians who have served faithfully on the advisory and induction boards.

Moreover, the committee has served in an advisory capacity to the War Department through the Headquarters of the Fifth Army Corps Area, Fort Hayes, Columbus, on numerous matters.

PROCUREMENT AND ASSIGNMENT

Not long after Pearl Harbor Sunday the committee found itself confronted with an additional responsibility—one which made those of the past appear by comparison to be only minor in character. This added responsibility came about when the committee consented to serve as an Ohio Committee on Procurement and Assignment for Physicians, operating under the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, U.S. Office of Defense Health and Welfare Service. A request of the committee that it serve in that capacity was made by the chairman who had been appointed as a member of the Committee on Procurement and Assignment of the Fifth Army Corps Area and designated as chairman for Ohio. It was the feeling of the chairman that the Committee on Medical Preparedeness of the Ohio State Medical Association was a seasoned and competent committee and that it would be desirable to make use of the experience and talents of that committee in cooperating with the Washington agency.

COMPLETE INFORMATION PUBLISHED

Since complete information about the Procurement and Assignment Service, its purposes and functions, has been published in *The Ohio State Medical Journal* and *The Journal of the American Medical Association,* it will not be necessary to set forth those facts in this report. Physicians who are not informed on this question should review articles which have appeared in recent issues of *The Ohio State Medical Journal* and *The Journal of the A.M.A.* since the Fall of 1941. The Procurement and Assignment Service has been operating for the past three months and so far it has adhered to the purposes for which it was established, namely: To assemble and maintain a complete roster of the medical, dental and veterinary personnel of the country; to assist the armed forces and governmental agencies in obtaining adequate professional personnel through voluntary enrollment on the part of such professional men; to exercise sound judgment in the selection of professional personnel and to try to place each man in a capacity where he can give maximum service and which will be in line with his qualifications, training and experience; and, finally, to protect the civilian population and war industries by seeing to it that the medical personnel of no community is decreased to such an extent that the health of the community would be endangered.

QUESTIONS BEING CLARIFIED

The Ohio committee has been called upon to advise the Procurement and Assignment Service on many matters since the first of the year. In making its recommendations, the committe has at all times kept in mind the basic purposes already referred to, and it intends to conform to that policy. There have been some misunderstandings about the Procurement and Assignment Service but these are rapidly being clarified. A few errors of omission and commission have been committed. This is a natural consequence when plans are made and action taken under pressure and when a great crisis prevails. Those mistakes have been rectified and should be forgotten. At present the Procurement and Assignment Service is working smoothly and it promises to provide a mechanism which will prevent a repetition of the serious dislocations and health emergencies which occurred during the war of 1917-18.

CIVILIAN DEFENSE

During the past six months the committee has taken an active part in assisting the State Council of Defense in organizing proper and adequate medical-health set-ups as a part of the local civilian defense programs. Suggestions as to what groups should be represented on the emergency medical-health committees established by local defense councils have been made to the State Defense Council. Helpful information and suggestions on civilian defense activities have been sent from time to time to the chairmen of the preparedness committees of the county medical societies so such committees will be prepared to take the lead in medical and health work as a part of the civilian defense program. Here is a great opportunity for the medical profession to assume leadership. Every community should have its medical and public health resources organized and on the alert. In modern warfare, as has been proven many times since the Fall of 1939, no community dares to regard itself as immune from disaster, directly or indirectly resulting from the war. Again we suggest that *The Ohio State Medical Journal* be used as a reference for detailed information about the role which the medical profession can, and should, play in civilian defense.

WHAT OF THE FUTURE?

The medical profession will be called upon to make great sacrifices during the coming months. At present approximately 750 Ohio physicians are on active duty with the armed forces. Undoubtedy many more younger members of the profession will enter the Army or Navy between now and the end of the year. Those who will be asked to remain at home because of age or for physical reasons will be called upon to work harder and to shoulder more and greater responsibilities than in the past. We are confident the medical profession of Ohio will meet these challenges. The Committee on Medical Preparedness cannot, of course, solve those highly personal problems which confront every physician today but it intends to take the lead in trying to minimize confusion and dislocations among the medical personnel of the state. It wants to see order and efficiency maintained in the enrollment of physicians for active service and in the utilization of medical personnel in civilian defense. Those who may feel that the committee is in a position to offer them helpful advice or information should communicate with the committee in care of the Headquarters Office of the State Association at Columbus. Members of the committee are available on invitation for discussions before county medical societies. In conclusion, the chairman wishes to pay tribute to the committee members for their conscientious and efficient services. They are: Dr. Charles E. Hauser, Cincinnati; Dr. Merrill D. Prugh, Dayton; Dr. Roland H. Good, Van Wert; Dr. Dale Wilson, Toledo; Dr. James N. Wychgel, Cleveland; Dr. H. H. Musser, Akron; Dr. Carl A. Lincke, Carrollton; Dr. Blaine R. Goldsberry, Athens; Dr. George G. Hunter, Ironton; Dr. Claude S. Perry, Columbus; and Dr. Charles R. Keller, Mansfield.

Moreover, the committee gratefully acknowledges its debt to the Executive Secretary, whose efficient organization at the Headquarters Office has carried the burden of a great volume of correspondence on routine matters and the collection and organization of information. His wide and intimate acquaintance with our membership in all parts of the state has been invaluable.

Robert Conard, M.D., Wilmington,
Chairman.

ANNUAL AUDIT OF BOOKS OF THE OHIO STATE MEDICAL ASSOCIATION AND THE OHIO STATE MEDICAL JOURNAL FOR YEAR ENDED DECEMBER 31, 1941, BY KELLER, KIRSCHNER, MARTIN AND CLINGER, CERTIFIED PUBLIC ACCOUNTANTS, COLUMBUS, OHIO

OHIO STATE MEDICAL ASSOCIATION

EXHIBIT A — Statement of Cash Receipts and Disbursements - Treasurer for the year ended December 31, 1941.

CASH AND BONDS ON HAND JANUARY 1, 1941

Cash		$ 3,199.08
United State Treasury bonds		70,000.00
Total cash and bonds at Jan. 1, 1941		$ 73,199.08

RECEIPTS

Transfers from Executive Secretary's account:		
Membership dues, 1941:	$44,718.00	
Membership dues prior years:	83.25	
Total transfers from Executive Secretary	$44,801.25	
Other receipts:		
U. S. Treasury bonds—41 — 43 redeemed	25,000.00	
Certificates of deposit cashed	20,000.00	
Interest on U. S. Treasury bonds	2,134.29	
Interest on certificates of deposit	150.00	
A.M.A. Meeting contribution refund	151.43	
Total receipts		92,236.97
Total to be accounted for		$165,436.05

DISBURSEMENTS

U. S. Treasury bonds—48—50, 2%		$ 25,000.00
Certificates of deposit		20,000.00
Ohio State Medical Journal		10,500.00
Executive Secretary's salary		6,300.00
Executive Secretary's expense		392.50
Asst. Executive Secretary's salary		4,800.00
Asst. Executive Secretary's expense		240.57
President's expense		467.38
Treasurer's expense		300.00
Council's expense		629.03
Annual meeting expense		495.65
Bureau of Public Relations:		
Director's salary	$ 3,600.00	
Director's expense	366.34	
Committee expense	1,836.68	
Operating expense	1,119.93	
		6,922.95
Committee on Education		766.94
American Medical Association Meeting contribution		1,500.00
Postage, telephone and telegraph		2,022.61
Rent		2,040.00
Stenographers' salaries		2,640.00
Stationery, printing and supplies		1,065.50
Unemployment insurance		469.64
Miscellaneous committee expense		277.56
Auditing		100.00
Dues and subscriptions		41.50
Employees' bonds		30.00
Liability insurance		40.00
Industrial insurance		16.77
Miscellaneous expense		90.81
Refund of dues—military service		770.00
Legal services		2,777.34
Total disbursements		$ 90,696.75
Cash on deposit and bonds on hand at December 31, 1941		74,739.30
Total accounted for		$165,436.05

CASH ON DEPOSIT AND BONDS ON HAND AT DECEMBER 31, 1941:

The Huntington National Bank—Treasurer's account		$ 4,739.30
United States Treasury bonds:		
Issue of 43—45, 3¼%	$20,000.00	
Issue of 43—47, 3⅜%	19,000.00	
Issue of 48—50, 2%	25,000.00	
Issue of 55—60, 2⅞%	5,000.00	
Issue of 56—59, 2¾%	1,000.00	70,000.00
TOTAL CASH AND BONDS ON HAND AT DEC. 31, 1941		$ 74,739.30

THE JOURNAL

FINANCIAL CONDITION

The financial condition of The Ohio State Medical Journal at December 31, 1941, (shown in detail in Exhibit A) was as follows:

Current assets	$ 4,064.36
Less current liabilities	60.00
Net current assets	$ 4,004.36
Property assets	2,773.27
Total net assets	$ 6,777.63

The above is represented by:

Surplus	$ 6,777.63

EXHIBIT A—Balance Sheet at December 31, 1941

ASSETS

Current Assets		
Cash—The Ohio National Bank	$ 3,307.66	
Cash—petty	10.00	
Total cash		$ 3,317.66
Accounts receivable		746.70
Total current assets		$ 4,064.36
Property Assets		
Furniture and fixtures (depreciated value)		2,773.27
Total Assets		$ 6,837.63

LIABILITIES AND SURPLUS

Current Liabilities		
Subscriptions prepaid		$ 60.00
Surplus		
Surplus at January 1, 1941	$ 5,197.89	
Add: Net profit for the year ended Dec. 31, 1941 (Exhibit B)	1,579.74	
Surplus at December 31, 1941		6,777.63
Total Liabilities and Surplus		$ 6,837.63

EXHIBIT B—Statement of Profit and Loss for the year ended December 31, 1941

Revenue		
Advertising		$ 13,315.90
Less: Commissions on advertising	$ 848.33	
Cash discounts	454.33	
Total deductions		1,302.66
Advertising revenue—net		$ 12,013.24
Circulation		10,769.50
Total revenue		$ 22,782.74
Expenses		
Journal printing	$13,800.36	
Office salaries	5,440.00	
Journal postage	729.29	
Illustrations and engraving	76.81	
Journal envelopes	557.55	
Depreciation	273.84	
Clipping service	78.00	
Dues and subscriptions	48.95	
Office supplies and expense	127.50	
Bad debts	5.50	
Travel expense	65.20	
Total expense		21,203.00
Net Profit transferred to surplus		$ 1,579.74

Annual Report of the Committee on Education

WHEN the Committee on Education met at Columbus on August 24, 1941, it was faced with the problem of formulating plans for the fourth course of the five-year postgraduate program of the Ohio State Medical Association, at a time when the international situation was becoming increasingly ominous. More and more members were being called to active duty in the armed forces. Physicians remaining at home were generally busier than they had been for years, and they had less time to attend medical meetings. Action of The Council of the State Association in waiving dues for members entering military service had reduced the income of the Association, necessitating curtailment of a number of items in the budget, including the appropriation for postgraduate education. Despite these deterring factors, the committee felt very strongly that the Association's program of continuing education, which had proved to be of definite value to the membership and to the public, must go on.

NEED ANALYZED

The whole field of postgraduate education in Ohio was analyzed. It was agreed that physicians residing in Cuyahoga and Hamilton counties had adequate opportunities for such training through the medical schools and academies of medicine in those counties. Northwestern Ohio was amply provided for by the Medical Institute of the University of Toledo to be held October 31; the annual meeting of the Northwestern Ohio Medical Association at Napoleon, October 7, and the annual postgraduate course of the Toledo Academy of Medicine, December 2-5. Plans had already been made for a meeting of the Fifth Councilor District at Cleveland, October 9, and for postgraduate days at Canton, October 8, and at Youngstown, October 30, sponsored annually by the Stark County Medical Society and the Mahoning County Medical Society, respectively. It was quite apparent that physicians residing in Northeastern Ohio did not lack for opportunities to refresh their medical knowledge.

FIVE REGIONS SELECTED

In view of the excellent courses already provided in these sections of the state, it seemed logical to the committee that the postgraduate program of the State Association should be concentrated elsewhere. The 61 counties not included in the areas already named were divided into five regions, and the most accessible town, with adequate facilities, selected as the meeting place for each region. The five regions, the counties comprising them and the time and place where the meeting was held, follow:

Central Region—Ashland, Nov. 7, Ashland, Crawford, Erie, Holmes, Huron, Knox, Lorain, Marion, Medina, Morrow, Richland and Wayne counties.

Eastern Region—Dennison, Nov. 6, Belmont, Carroll, Columbiana, Coshocton, Harrison, Jefferson, Stark and Tuscarawas counties.

Southeastern Region—McConnelsville, Nov. 5, Athens, Fairfield, Guernsey, Licking, Meigs, Monroe, Morgan, Muskingum, Noble, Perry and Washington counties.

Southern Region—Piketon, Nov. 13, Adams, Brown, Clermont, Gallia, Highland, Hocking, Jackson, Lawrence, Pike, Ross, Scioto and Vinton counties.

Western Region—Springfield, Nov. 12, Butler, Champaign, Clark, Clinton, Darke, Delaware, Fayette, Franklin, Greene, Logan, Madison, Miami, Montgomery, Pickaway, Preble, Shelby, Union and Warren counties.

DECIDED ON ONE-DAY MEETING

While the previous three courses of the postgraduate program had consisted of a series of meetings, it was felt that the exigencies of the situation made a one-day postgraduate program more feasible. It was decided to have five 45-minute talks on each program, three in the afternoon, two in the evening, each to be followed by a 15-minute question-and-answer period. Arrangements were to be made so that all attending the session could eat dinner together.

Selecting subjects of current importance and which would attract the largest attendance was no easy task, but the committee agreed on the following:

1. Control of Obstetrical Hazards.
2. Treatment of Nephritis in Childhood.
3. Modern Treatment of Burns.
4. Chemotherapy Today.
5. Deficiency Diseases Seen as Complications of Common Medical Conditions.

EXCELLENT SPEAKERS CHOSEN

In an earnest attempt to secure competent and authoritative speakers on these subjects, the committee combed the state for suggestions. Advice of officials of the faculties of three Ohio medical schools and other prominent physicians was sought. The result was a list of speakers of not only wide clinical experience but of proven ability on the platform. Their talks were carefully prepared and interestingly presented. At the request of the committee, the speakers made their talks practical, and also prepared comprehensive summaries which were mimeographed by the State Association Headquarters Office and distributed at the meetings. A number of the speakers were scheduled for two or more meetings. All donated their time, the only recompense being reimbursement for traveling expenses. Their colleagues in the Association, particularly those who attended the meetings, should be extremely grateful to them. They are: Doctors Sterling H. Ashmun, Dayton; Earl H. Baxter, Columbus; William B. Bean, Cincinnati; H. M. Clodfelter, Columbus; Dana W. Cox, Columbus; Martin W. Diethelm, Toledo; A. Carlton Ernstene, Cleveland; Jonathan Forman, Columbus; Donald M. Glover, Cleveland; J. M. Hayman, Jr., Cleveland; James G. Kramer, Akron; Chas. W. Pavey, Columbus; C. C. Sherburne, Columbus; Arnold F. Sydow, Cleveland; H. P. Taylor, Cleveland; Spencer A. Wahl, Cleveland; Chas. T. Way, Cleveland.

ARRANGEMENTS AND ATTENDANCE

No meeting can be successful if the local arrangements are not carefully provided. This important responsibility for the postgraduate lectures was fulfilled most efficiently by local chairmen. They arranged for the meeting-place, registration details, dinner reservations, lanterns, blackboards and other equipment for the speakers, and with the assistance of local committees and public officials, without exception, did everything possible to make the local facilities for the meetings highly satisfactory. For this conscientious and efficient service, we express the appreciation of the committee and the officers of the Association to the following local chairmen: Dr. C. E. Northrup, McConnelsville; Dr. R. E. Wolf, Uhrichsville; Dr. L. H. Martin, Ashland; Dr. G. M. Lane, Springfield; Dr. I. P. Seiler, Piketon.

Attendance at the meetings was better than at the average medical meeting. This was probably due to the intensive promotional campaign carried on through the State Headquarters Office. Stories about the meeting were distributed to the press through releases from the Bureau of Public Education; articles appeared in *The Ohio State Medical Journal;* and every member located in the five postgraduate regions received a preliminary announcement of the meeting in his region, followed by a reminder, with the complete program and a return dinner reservation card, a few days prior to the meeting. As it can be said about most worthwhile meetings, medical and otherwise, "It's too bad there weren't more people there". It can also be said, based on comments made at the meeting and also written to officers of the Association, that the postgraduate course presented by the State Association in the Fall of 1941 afforded those who attended an outstanding opportunity to keep themselves abreast of the times in the subjects presented. We feel that most of the 442 physicians who registered at the five postgraduate days will attest to that statement. Attendance was distributed as follows: McConnelsville, 50; Dennison, 64; Ashland, 78; Springfield, 171; Piketon, 79.

"IF CIRCUMSTANCES PERMIT"

The Council of the State Association has recommended to the Committee on Education that the same type of postgraduate program, i.e., a one-day session, be presented in the Fall of 1942, "if circumstances permit". In making plans for next Fall, the committee is confronted with factors that are even more unpredictable than those faced a year ago. It is safe to predict that by next Fall several hundred more Ohio physicians will be in military service, and the responsibility for civilian health will fall more heavily on each physician remaining at home. On the other hand, with that added responsibility it behooves every member of the medical profession, more than ever before, to equip himself to render the best medical service of which he is capable. To do this he must keep his medical knowledge up to date. Believing that one of the most important functions of the Ohio State Medical Association is to furnish its members with every possible opportunity to keep in step with advancement in the science and art of medicine, it is the hope of the Committee on Education that conditions will permit it to sponsor another program of postgraduate education for the medical profession in Ohio next Fall.

In conclusion, the chairman of the committee wishes to acknowledge with gratitude the splendid assistance which he received from the following colleagues on the Committee on Education: Dr. J. Edwin Purdy, Canton; Dr. J. L. Webb, Nelsonville; Dr. Sterling H. Ashmun, Dayton; and Dr. Carl A. Wilzbach, Cincinnati.

Clyde L. Cummer, M.D., Cleveland,
Chairman.

Attorney General Opinions

Among recent opinions of Attorney General Thomas J. Herbert are two of interest to the medical profession. Syllabus of each follows:

No. 4774—The expenses incurred in providing hospital services, including special nurses' care to quarantined persons who are unable to pay therefor, are to be paid by the municipality or township in which the quarantine is maintained. Upon proper notification, however, as provided in Section 4438-1, General Code, the municipality or township of legal settlement, if within the same county in which the indigent is quarantined, shall be liable for the expenses so incurred.

No. 4869—County commissioners may expend moneys in the general revenue fund for the purpose of paying the necessary operating expenses, including office space and supplies, for a local county council of defense, created under and by virtue of the provisions of Section 5290 of the General Code (Sec. 6, Am. S.B. 178, effective August 19, 1941).

Report of the Bureau of Public Education

FOLLOWING the pattern established in its first 18 months of existence, the Bureau of Public Education continued during the year past to administer a flexible program of general public relations designed to place accurate and reliable information about medical care and the medical profession before the people of Ohio. During the latter part of the year, it became necessary, to a certain extent, to adjust this program to the special situations created by the nation's preparation for war.

As in the past, all material of any sort disseminated by the Bureau of Public Education was officially approved by appropriate officials or committees of the State Association.

The press release program, built up since the establishment of the Bureau, was continued and expanded. A complete and up-to-date list of all Ohio newspapers is maintained in the Headquarters Offices, and their editors are furnished from time to time with articles dealing with modern medical science and the medical profession in Ohio.

TWO CLASSES OF ARTICLES

These newspaper articles last year fell roughly into two classes: those dealing with policies and activities of medical organization in Ohio, and those of a health education nature, based on official publications or statements. A total of 17 different releases was distributed last year on either state-wide or regional basis. Of this number, 10 were of the health education type, written around articles published in *The Ohio State Medical Journal* or statements of the Sub-Committee on Public Health Education, and seven dealt with Association policies and activities. Altogether, more than 5,300 individual pieces of copy were distributed to Ohio newspaper editors in the 11 months since the last report of the Bureau was issued.

For two principal reasons the acceptance by newspapers of the Bureau's releases was extremely gratifying. In the first place, a high degree of selectivity was exercised in preparing the articles. No story was released unless it could be unquestionably justified from the standpoint of news or educational value. The Bureau's experience has proved that this policy is preferable in the long run to the other policy of flooding the state with newspaper releases regardless of their intrinsic news value. Secondly, because articles released by the Bureau deal with health and medical care—a field of high public interest—editors welcome them. Moreover, the Bureau has by now established its reputation among Ohio journalists as a dependable source of accurate informational material.

SERIES OF RELEASES PREPARED

A press relations project of a quite different type has recently been set up by the Bureau. This consists of a series of 16 feature articles dealing with different topics in the fields of medical care, health protection, and scientific medicine generally. This set of articles is available to officers of county medical societies who can make arrangements with the editors of local newspapers for their publication. Because of their nature (i.e., without a "spot news" or time element involved) these stories are intended primarily for weekly and small daily papers to be published under a suitable editor's note explaining that they are sponsored by the medical society. This project is too new as yet to evaluate its acceptance.

A routine feature of the press relations program is, of course, publicizing the Annual Meetings of the State Association. Although the 1941 meeting in Cleveland did not include a scientific program, several newspaper articles concerning the sessions of the House of Delegates were released and given wide circulation. Advance publicity for the 1942 meeting has already been started.

EXHIBITS PROVE POPULAR

Several unusual educational exhibits were arranged by the Bureau during the past year. Foremost among them was the "Mother Goose Health Rhyme" exhibit shown at the 1941 Ohio State Fair and later used at a number of other gatherings. Built around the principle of attracting parents by interesting their children, this project was used to teach some fundamental facts about health and medical care through parodies on favorite nursery rhymes. The background of the booth consisted of six large brightly colored panels showing the verses with cartoon illustrations. From the booth, senior medical students in white hospital uniforms distributed to parents small booklets containing the health rhymes together with other pertinent information about health and the medical profession. This exhibit attracted considerable attention, and, after the Fair, several hundred requests for the booklets were received from school teachers, health educators, physicians, and other interested persons. The large posters were also exhibited at county fairs, health institutes, and similar meetings around the state. They were also loaned to the State Medical Society of Wisconsin, which duplicated both the rhyme booklets and the posters for use in schools and at fairs in that state. Later the posters were on display at the Cleveland Health Museum during a meeting of the Ohio Valley Division of the Child Welfare League.

The "Mother Goose Health Rhyme" project was discussed by the Bureau director at a conference on professional participation in health education during the annual Institute on Health Education in Atlantic City last October, where it aroused wide interest.

SHOWN BEFORE STATE GROUPS

Another exhibit, relatively smaller, was prepared by the Bureau to illustrate the importance of integrated cooperation among the various agencies interested in community health. This display piece, entitled "How to Gear Your Community for Better Health" employed a series of cut-out gear wheels to show that efforts of the various civic organizations should be coordinated with activities of the county medical society in the interests of better community health programs. This exhibit was shown at a meeting of the National Council of Church Women in Columbus, at the joint meeting of The Ohio General Welfare Conference and the White House Conference in Akron, and later at the Cleveland Health Museum.

Besides this material prepared by the Bureau, other exhibits were obtained from the American Medical Association for special occasions. One such exhibit dramatizing American medical discoveries was shown at the Miami Valley Centennial in Dayton, and another entitled "The Doctor's Office as a Health Education Center" was displayed at the Akron welfare meeting and at the Mississippi Valley Conference on Tuberculosis and Health, held in Columbus.

SPEAKERS FURNISHED

Last year, again, the Bureau endeavored to foster good public relations for medicine through speaker services. This was carried on in two ways: Lay groups which desired to place physicians on their programs were provided with speakers, and physicians who had been invited to address lay gatherings were provided with material to help them in preparing their talks. Speakers were obtained for more than a score of service clubs and civic organizations, principally the Women's Field Army of the American Society for the Control of Cancer, which relies entirely on the State Association in obtaining physicians to discuss cancer control education.

As a service to physicians who are asked to speak to lay groups, the Bureau prepared another in its series of suggested 30-minute talks, this one on the topic "Twentieth Century Medical Progress". Manuscript for this talk and an outline of it, from which a speaker may extemporize, have been sent to physicians in more than 30 Ohio communities, and requests for it are still regularly being received.

LOAN PACKETS

Background material on many other subjects was supplied in loan packet form to physicians invited to address public groups. Literature and statistical data for this purpose are accumulated by the Bureau and kept in a subject file, and each year an increasing number of State Association members take advantage of this service. Loan packets are also furnished to teachers, students, reporters and others gathering information on medical and health subjects.

A request was received from the Ohio Commission for Democracy, a permanent citizens' group established by the Governor in 1940 to promote community enterprise, for assistance in preparing a manual on "How To Organize a Community Health Program". Text for this manual was drafted in the Bureau in cooperation with H. W. Nisonger, Ph.D., secretary of the Commission. It was published in *The Ohio State Medical Journal* as an item of interest to the medical profession, and later reprints of it were distributed to the more than 600 Ohio community leaders. The pamphlet is now used by the Commission as a guide and source of suggestion and information for any Ohio community which wishes to organize a health education program on an adult level.

A request was received from the Ohio Chamber of Commerce for assistance in preparing the health section of its "Home Defense Kit", a packet of educational pamphlets instructing housewives about their roles in national defense. This service was gladly furnished.

ENTERS RADIO FIELD

In the field of radio the Bureau expanded its role as a clearing house for health and medical program scripts. Actual scripts as well as lists of titles for several hundred talks, interviews and dramas which have already been given over the air are filed and catalogued in the Bureau, and assistance is given to any county medical society planning a series of radio programs by furnishing or obtaining scripts. During the past year three Ohio medical societies which regularly sponsor health broadcasts were served in this manner.

The Bureau holds membership in the Institute for Education by Radio and the Central Ohio Radio Council and through them cooperates with other public service organizations which sponsor educational radio broadcasts.

To date, preliminary plans have been made to produce a series of broadcasts over Columbus stations during the Ninety-Sixth Annual Meeting similar to the group of 13 programs broadcast from Cincinnati stations at the time of the Ninety-Fourth Annual Meeting.

Promotional activity in behalf of the series, "Doctors at Work", broadcast by the American Medical Association in collaboration with the National Broadcasting Company was carried on by the Bureau last year as previously.

MANY QUERIES ANSWERED

Besides the specific projects outlined above, the Bureau last year performed innumerable small tasks which fall properly in the classification of medical public relations. Daily correspondence included many queries and requests for information about medicine and health which were gladly answered. The Bureau naturally serves as a sort of clearing house for information on where and how to obtain films, data on vital statistics, facts in medical economics, monographs and pamphlets in health education, etc., and requests for material of this sort are routinely fulfilled.

Entry of the United States into the war had a definite effect on activities of the Bureau. Newspapers have made large cuts in column space devoted to non-war matters; radio station program directors have very stringent limitations on their time commitments; and the public generally is less interested in some of the medical and health matters with which the Bureau has been dealing. Much of the State Association's effort is now devoted to cooperating with the Procurement and Assignment Service, the Selective Service System, and other military and non-military branches of the federal and state governments. Although it would be highly desirable, from the viewpoint of public relations, to publicize these services of medical organization in Ohio, any such attempt would likely be in direct contravention of wartime censorship rules and cannot, therefore, be undertaken.

PERSONAL CONTACTS

Personal contacts of the Bureau's director are of some significance in the general public relations program. Intangible things such as attendance at meetings of many organizations interested in health (i.e., the Ohio General Welfare Conference, the Ohio Follow-Up of the White House Conference, the Ohio State Field Workers' Association, etc.) are of value in maintaining an active interest in health and medical affairs throughout the state.

In closing, it should be pointed out again that the Bureau of Public Education is an integral part of the State Association and must function in interdependence with its officers and committees. Were it not for the splendid support and cooperation afforded it by the President, Past-President, President-Elect, Council and Committee Members, Editor of *The Journal*, and Headquarters Executive Staff, it would be next to impossible to carry on the program. Hence, recognition of the assistance received from these as well as from other helpful State Association members is fitting as part of this report.

Richard A. Aszling, Director,
Bureau of Public Education.

Syphilis Control Program of State Health Department Expanded; Physicians' Fees Increased

The State Department of Health has announced expansion of its program for the treatment by private practitioners of syphilitic individuals who are indigent citizens of the state, residing in areas where free clinic facilities are not available: An increase in the fees paid physicians in private practice is authorized in the expanded program.

In a communication to local health commissioners dated March 15, Dr. R. H. Markwith, State Director of Health, outlined the following items in which the scope of department's program has been expanded:

1. By extending its availability to all types of early acquired syphilis, which is hereby defined as acquired syphilis of less than four years duration.

2. By including congenital syphilis, provided treatment starts before two years of age.

3. By admitting Selective Service registrants who have been deferred because of syphilis.

4. By increasing the service available to the pregnant woman so that her treatment may be continued beyond the time of delivery.

5. By augmenting from 40 to 50 the number of treatments which may be authorized in a given case.

6. By raising the fee of the physician to $1.00 per treatment, and increasing the maximum of fees paid for the treatment of a case of syphilis from $30.00 to $50.00.

It is the expectation of the State Department of Health that every Selective Service registrant deferred because of syphilis will be located and given adequate anti-syphilitic treatment by private arrangement, by clinic, or by fee plan. Inquiry at regular intervals shall be made to determine that the registrant is remaining under treatment as directed, so that he may be returned to his local draft board at the earliest possible moment.

Physicians in private practice will be informed of the availability of the nursing staff of the health district for assisting in controlling delinquency.

Complete details of this program and copies of the forms to be used can be obtained from local health commissioners.

Cleveland—Dr. Matthew Walzer, director of the Allergy Clinic, Jewish Hospital, Brooklyn, spoke on "Food Allergy", at a meeting of the Cleveland Allergy Society, March 24. Officers of the society are Dr. J. Warrick Thomas, president and Dr. Ryan P. Estes, secretary.

Columbus—Dr. Warren G. Harding spoke on "Adventure of a Columbus Doctor in Australia", at a meeting of the Kiwanis Club.

Proceedings of The Council

Annual Meeting Program Approved; Public Relations Committee Reports on Important Questions; Numerous Other Matters Discussed

A REGULAR meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Columbus, on Sunday, March 8, 1942, with the following in attendance: President Paryzek, President-Elect McCormick, Past-President Skipp, Treasurer Beer; Councilors Schriver, Hogue, Brindley, McNamee, Swan, Seiler, Sherburne, and Burley; Dr. Alcorn, member of the House of Delegates of the A.M.A.; Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

Minutes of the last meeting of The Council, held on December 14, 1941, and published in the January, 1942, issue of *The Journal*, were **approved** on **motion** by Dr. Hogue, seconded by Dr. Brindley and **carried.**

Membership—Membership statistics were reported as follows: Membership as of March 8, 1942—6,093 (including 351 in military service), compared to 5,956 as of March 8, 1941, and to 6,604 as of December 31, 1941 (including 278 in military service).

Members of The Council submitted reports on activities in and visits to medical societies in their respective Councilor Districts.

Dr. Beer, the treasurer, and Dr. Sherburne, chairman of the Committee on Auditing and Appropriations, reported on the exchange of government bonds for Defense Bonds and the purchase of a block of Defense Bonds from the current funds of the Association. On **motion** by Dr. Beer, seconded by Dr. McNamee and **carried**, this financial transaction was **approved.**

1942 ANNUAL MEETING

Program—The Executive Secretary, on behalf of the Committe on Scientific Work, reviewed the program for the 1942 Annual Meeting, April 28, 29, and 30, Neil House, Columbus. On **motion** by Dr. Hogue, seconded by Dr. McNamee and **carried**, the program as presented was **approved.**

Annual Meeting—A request from the Columbus Academy Committee on Arrangements for the Annual Meeting, for financial assistance in underwriting expenses of the Annual Banquet, was considered. On **motion** by Dr. McNamee, seconded by Dr. Brindley and **carried**, The Council voted to allow an amount not to exceed $500 from Annual Meeting funds, if needed, for this purpose.

Special Societies—Requests from representatives of a number of special societies asking the approval of The Council of their plans to hold brief meetings in Columbus at the time of the Annual Meeting, were **approved** on **motion** by Dr. McNamee, seconded by Dr. Hogue and **carried.**

REPORT OF PUBLIC RELATIONS COMMITTEE

Acting for the chairman of the Committee on Public Relations and Economics, Dr. Hein, the Executive Secretary presented a report from that committee.

Laboratory Regulations—A set of regulations drafted by the committee and Dr. R. H. Markwith, state director of health, adopted by the committee at its meeting on January 18, 1942, placed into effect on February 16, 1942, and published in the March 1 issue of *The Ohio State Medical Journal*, pages 274-275, was **approved** on **motion** by Dr. Schriver, seconded by Dr. Hogue and **carried.** The regulations governed the procedure for approval of laboratories wishing to qualify to make tests for syphilis under the Ohio Premarital Examination Law.

Tuberculosis Committee—Action of the committee in authorizing its chairman, Dr. Hein, to appoint a special Sub-Committee on Tuberculosis to make a study of the present Ohio tuberculosis laws and regulations was reported. Such a study was authorized by the House of Delegates at the 1941 Annual Meeting through the adoption of Resolution A. The following have been appointed as members of this special sub-committee: Dr. Howard Holmes, Toledo, chairman; Dr. T. L. Bliss, Akron; Dr. Colin R. Clark, Youngstown; Dr. Myron D. Miller, Columbus; Dr. G. G. Bassett, Cleveland; Dr. Hein and Dr. R. H. Markwith, state director of health, ex-officio members of the committee. It was reported that the committee held its first meeting on Saturday evening, March 7, and has started its study. On **motion** by Dr. Sherburne, seconded by Dr. Brindley and **carried**, the action of the committee and the appointments were **approved.**

Examination of Foster Parents—It was reported that the Committee on Public Relations and Economics had held a conference with representatives of the Division of Social Administration, State Department of Public Welfare, for the purpose of assisting that division in working out a program to protect the health of children being placed in foster homes through a physical examination of the inhabitants of such homes. The following recommendations on this matter were **approved** on **motion** by Dr. Brindley, seconded by Dr. Hogue and **carried**:

"(a) Foster parents and all persons residing in dwellings being considered for housing foster children would undergo a complete physical examination before foster children are placed with such families in order to protect the health of such children.

"(b) Such examination should include an X-ray of the chest and serological and bacteriological examinations.

"(c) A suitable program for carrying out such examinations should be worked out between representatives of the State Department of Public Welfare and the county medical society of each county.

"In event the carrying out of the suggestions contained in (a) and (b) is not feasible, the following is recommended as a minimum alternative plan:

"(d) Each person residing in a dwelling where foster children are to reside should be requested to submit to an X-ray of the chest and a clinical examination and a serological test and clinical examination for the purpose of ascertaining whether or not the individual has pulmonary tuberculosis in the infectious state or syphilis in a communicable state. Children should not be placed in such homes unless the physician making these examinations is in a position to state that in his opinion the individuals examined do not have tuberculosis or syphilis in the infectious or communicable stages."

National Physicians Committee—The committee reported that, pursuant to the request of The Council at its last meeting, it had reviewed the activities of the National Physicians Committee and recommended to The Council that the present policy of the Ohio State Medical Association, reading as follows, should **not** be changed: "Affiliation with the National Physicians Committee is a matter to be decided individually by members of the medical profession." Following a discussion, on **motion** by Dr. McCormick, seconded by Dr. Hogue and **carried**, the recommendation of the committee was **amended** by the addition of the following: "That the President of the Ohio State Medical Association write to the National Physicians Committee requesting specific information regarding its activities and organization set-up, and that he also communicate with the American Medical Association asking what the American Medical Association expects of the Ohio State Medical Association and its component county societies with respect to the activities of the National Physicians Committee." On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried**, the foregoing recommendation as **amended** was **adopted**.

Income Tax Question—A recommendation of the committee that the Ohio State Medical Association should **not** support proposed legislation asking that expenses for medical services and drugs be permitted as a deduction on income tax returns, was **approved** on **motion** by Dr. McNamee, seconded by Dr. Brindley and **carried**.

MEDICAL PREPAREDNESS

A report of a recent meeting of the Committee on Medical Preparedness was submitted on behalf of the committee by the Executive Secretary. Reference was made to articles on procurement and assignment, published in the February and March issues of *The Ohio State Medical Journal*. The policy established by the committee for handling procurement and assignment activities in Ohio, as well as the report of the committee as a whole, were **approved** on **motion** by Dr. Schriver, seconded by Dr. Swan and **carried**.

MISCELLANEOUS

Amendments Approved—A series of proposed amendments to the constitution and by-laws of the Tuscarawas County Medical Society, submitted by that society and previously reviewed by the Judicial and Professional Relations Committee and amended by that committee, were **approved** on **motion** by Dr. Sherburne, seconded by Dr. Burley and **carried**.

Industrial Commission Question—A request by representatives of the War Department that the Ohio State Medical Association reconsider a communication filed with the State Industrial Commission, objecting to a proposal for handling medical costs and activities at the Ravenna Ordnance Plant operated by the Atlas Powder Company for the War Department, was considered. After a lengthy discussion on **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, The Council voted **to suspend** its objections to the proposal because of the national crisis and in order to facilitate the War Department in all its activities in prosecuting the war to a successful conclusion, if the Industrial Commission, should it accede to the request of the War Department, will establish certain safeguards against abuses. The safeguards recommended by The Council in taking this action were as follows: (1) That the proposal relating to the Ravenna Ordnance Plant, and any similar proposal for other plants of like character, shall be in effect only for the duration of the war. (2) That the Commission in considering all subsequent requests of this kind on their merits shall not be expected to approve similar arrangements for an industry unless it is being operated under a cost plus a fixed fee type of contract with the War Department or other governmental agency and is engaged in the production of war materials. (3) That such agreements shall apply only to the fee bills submitted by physicians employed on a full-time, salary basis by the industry and shall not apply to fee bills submitted by other physicians, i.e., those in private practice, who may be called upon to render services to disabled employes of such industry.

Poor Relief—A communication from the Summit County Medical Society requesting that a special committee be appointed to consider medical relief problems peculiar to urban communities was considered. On **motion** by Dr. McNamee seconded by Dr. McCormick and **carried**, this request was referred to the special Committee on Poor Relief, of which a majority of members reside in urban centers.

Hospital Proposal—The Council considered a communication from the Cleveland Academy of Medicine asking for the opinion of the State Association regarding a proposal drafted by a Cleveland hospital with respect to the handling of ambulatory accident cases brought to the institution. On **motion** by Dr. McNamee, seconded by Dr. Swan and **carried**, this communication was referred to the Committee on Public Relations and Economics for study and report.

Death Certificates—A request of the State Director of Health for an opinion regarding the feasibility of providing physicians with pads of death certificates in a manner similar to that used for the handling of birth certificates was considered. It was pointed out that such a plan is in operation in one of the larger counties of the state and seems to be working satisfactorily. In his request for consideration the State Director of Health stated that this would not entail any more paper work on the part of the physician as he would not be expected to fill out any part of the blank except the medical certificate of death. The reasons offered for this suggested change were: (1) That it would enable the physician to sign the certificate at his convenience and not at a time when he was the busiest; and (2) it would relieve the funeral director of the necessity of making several trips to the physician's office or home. On **motion** by Dr. Schriver, seconded by Dr. McNamee and **carried**, the foregoing procedure was **approved.**

Advertising Policy—The Executive Secretary submitted two questions involving the advertising policy of *The Ohio State Medical Journal.* He reported that *The Journal* had been requested to carry a wine advertisement. On **motion** by Dr. McNamee, seconded by Dr. Hogue and **carried**, The Council instructed the management of *The Journal* **not** to accept wine advertising. The Executive Secretary also asked for an official opinion of The Council with respect to cigaret advertising. On **motion** by Dr. Brindley, seconded by Dr. Seiler and **carried**, The Council authorized the publication of cigaret advertising in *The Journal*, designating the Editor and the Executive Secretary as a board of review for such advertising copy.

Women's Field Army—A request from the Executive Committee of the Women's Field Army Against Cancer that the Association express itself on a plan of the committee to increase its size by adding three women as members was discussed. On **motion** by Dr. Hogue, seconded by Dr. Beer and **carried**, The Council **approved** the proposal.

Social Security—Attention was called to a special article in the March 7 issue of *The Journal of the American Medical Association* regarding proposed changes in the Social Security Act to permit compensation for lost time due to illness and for hospitalization benefits. There being no specific legislative proposal of this kind before Congress at this time, no action was taken but the Committee on Public Relations and Economics and the Sub-Committee on Legislation were instructed to keep in close touch with developments on this and similar questions.

There being no further business, The Council adjourned to meet at the Neil House, Columbus, on Monday evening, April 27, the eve of the 1942 Annual Meeting.

Attest: CHARLES S. NELSON,
Executive Secretary.

Mahoning County Postgraduate Day Program Scheduled for April 15

Another fine program has been arranged for the Annual Postgraduate Day of the Mahoning County Medical Society, Wednesday, April 15, at the Pick-Ohio Hotel, Youngstown. The speakers will be four members of the faculty of Northwestern University Medical School, Chicago, each of whom will discuss two subjects. The program follows:

Dr. J. R. Buchbinder, associate professor of surgery: "Acute Diffuse Peritonitis: Pitfalls in Diagnosis and Some More Recent Concepts of Treatment"; "The Present Status of Surgery for Duodenal Ulcer".

Dr. Harry Culver, associate professor of urology: "Traumatic Conditions of the Male Urethra and Bladder"; "Non-specific Upper Urinary Tract Infections".

Dr. Paul S. Rhoads, assistant professor of medicine: "Clinical Feature and Treatment of Pneumonia, 1941-42 Season"; "Hemolytic Streptococcus Infections of the Throat and Nose: Their Importance as a Clinical and Public Health Problem".

Dr. Geo. H. Gardner, assistant professor of obstetrics and gynecology: "Pelvic Endometriosis —An Increasingly Frequent Clinical Problem"; "Management of the Barren Marriage".

Arrangements for the meeting are in charge of Dr. Craig C. Wales, chairman of the Postgraduate Day committee of the Mahoning County Medical Society. All Ohio physicians are cordially invited to attend.

WAR NOTES

FAMILIES of Lt. Col. J. N. Hayman and Lt. Col. W. L. McCally, who were formerly faculty members of Western Reserve University School of Medicine and staff members at Cleveland's University Hospitals, have received cablegrams announcing their safe arrival in Australia with the American Army contingent sent there. Similar messages have been received by the families of approximately 50 other Cleveland physicians also reporting their safe arrival in Australia. These messages contained no information other than that bare statement and personal greetings.

* * *

The Cincinnati Board of Health, in cooperation with the Hamilton County Defense Council, plans to include a casualty station and a decontamination center when it remodels its Health Center soon. These changes are to be made on recommendation of Dr. Carl Wilzbach, health commissioner, and Dr. Parke G. Smith, head of the medical-health division of the county defense organization.

* * *

Dr. William E. De Vol, Columbus, is at Nanking, China, where he is on the staff of the University Hospital. No word was received from him after the United States entered the war until February 20, when Mrs. De Vol received a cablegram from Shanghai, relayed via Vichy, France, saying that he was safe and well.

* * *

Among Ohio medical officers who have recently been promoted in rank are the following, whose new ranks are indicated: Navy—Lt. Jacque E. Miller, Shelby; Lt. Frederic G. Hirsch, Toledo; and Lt. John B. Toepfer, Jr., Cincinnati. Army—Capt. Louis L. Marcus, Toledo; Capt. Donald D. Forward, Ashtabula; Capt. Lester Russin, Cincinnati; Capt. Shepard A. Burroughs, Ashtabula; Capt. Thomas E. Patton, North Jackson; Capt. Alfred Breuer, Cleveland Heights; Capt. Orin R. Yost, Akron; and Capt. David Taylor, Yellow Springs.

* * *

All American sailors who become ill on leave are eligible for medical care in a Navy sick bay or under a naval medical officer. If these are not available, he may seek the service of a private physician, who will be compensated by the Navy. If a soldier is on leave less than 12 hours, he will be cared for at Army expense in either an Army hospital or, if necessary, by private physicians. The Army, however, will not pay for private medical service rendered to soldiers who have been on leave longer than 12 hours.

* * *

Capt. Frank E. Hamilton, Columbus, formerly assistant professor of surgical research, Ohio State University College of Medicine, has been sent by the Army to Vancouver, Wash., to join the surgical staff of Vancouver Barracks Station Hospital.

New Procurement-Assignment Blanks About Ready

ADVICES received from the Procurement and Assignment Service, Washington, at press time indicated that the NEW ENROLLMENT FORM AND QUESTIONNAIRE for physicians, dentists and veterinarians, referred to in the March, 1942, issue of *The Journal*, would be mailed from Washington during the first week of April.

Every physician will receive an enrollment form and questionnaire, giving him an opportunity to indicate a preference for various types of services. Those in the service or those who have already enrolled with Procurement and Assignment Service should so indicate on the form. A franked envelope will accompany the forms which should be returned as soon as possible to the Washington office.

Dr. Burr N. Carter, of Cincinnati, has been called to the office of the Surgeon General of the Army to serve as surgical consultant with the rank of lieutenant colonel. Associate professor of surgery at the University of Cincinnati College of Medicine, Dr. Carter is widely known for his work in surgery of the chest, particularly thoracoplasty.

* * *

Naval Reserve Medical Specialist Unit No. 110, which includes seven physicians from the staff of the Cleveland Clinic, was ordered to active duty in March. The seven Clinic physicians are: Lt. Comdr. W. James Gardner, neurosurgeon; Lt. Comdr. A. C. Ernstene, internist; Lt. Comdr. W. J. Engel, urologist; Lt. Comdr. Joseph C.

Root, roentgenologist; Lt. Comdr. Roscoe J. Kennedy, ophthalmologist and otologist; Lt. George Crile, Jr., surgeon; and Lt. (j.g.) E. J. Ryan, clinical pathologist. Lt Comdr. Guy H. Williams, Jr., has also joined the Unit as neuropsychiatrist, and Lt. (j.g.) William A. Nosik, alternate neurosurgeon, may also be called.

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Word has been received in America of the safe arrival in England of Dr. E. Harlan Wilson, Columbus orthopedist who was sent abroad by Clipper to join the staff of the American Hospital in Britain.

* * *

"Sulfanilamide has definitely replaced iodine as first aid treatment of wounds", said Maj. Roger G. Prentiss, Jr., of the Army Surgeon General's office at the War Sessions held in Columbus under sponsorship of the American College of Surgeons. He said that each soldier is outfitted with six grains of the drug in tablet form and a packet of it in crystaline form with instructions for use in case of injury in battle.

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Derrick T. Vail III, 19-year-old son of Dr. and Mrs. Derrick T. Vail, Cincinnati, is listed as "missing in action" by the Royal Canadian Air Force, to which he was attached as a flyer in England.

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Lorain County physicians have issued a statement asking the public to exercise conservation and discretion in demands for medical services during war times because of fewer civilian doctors, restrictions on travel, and increases in industrial and civilian defense work.

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Dr. Lawrence P. Schumache, Cleveland, a first lieutenant in the Army Medical Corps, recently underwent training at the Army Medical Field Service School, Carlisle Barracks, Penn.

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Special venereal control officers, with the rank of major or higher, will be placed at each large Army detachment, it was recently announced by the War Department. These specially qualified medical officers will supplement the venereal disease program now in effect with special wartime activities. They will work out cooperative plans with all agencies, military and civil, concerned with venereal diseases.

In his annual report to the Secretary of War, the surgeon general reported that the venereal disease admissions rate for the Army rose in the year ending June 30, 1941, to 42.5 per 1000 from 29.6 per 1000 the previous year. Part of the increase is explained by the fact that a number of cases are still in the incubation period when induction physical examinations are given and thus slip into the Army. The report said also that the increase may be due in part to discontinuance of the former custom of trial by court martial for men who were exposed without seeking prophylaxis.

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Dr. Charles R. Forrester, Toledo, a lieutenant in the Navy Medical Corps, is safe in the Pacific war zone, according to official notification received by his family.

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The War Department recently announced that mobile optical units will be organized to accompany armies in the field and will provide lens replacements for soldiers without cost. Housed in a two-and-one-half-ton truck, such a unit will carry a large assortment of semi-finished lenses and will be equipped to turn out 60 pairs of eyeglasses daily, which is estimated to be sufficient to meet the requirements of 300,000 men. It is expected to meet 99 per cent of the spectacle needs of the armies in the field with these units.

* * *

Dr. J. W. Halfhill, Jr., Lima, a captain in the Army Medical Corps, has spent several months in army hospitals recovering from a leg fracture sustained during Army maneuvers in Louisiana.

* * *

The University of Cincinnati has been selected as America's center for intensive training in the medical aspects of chemical warfare. Physicians from all over the United States are selected by the Office of Civilian Defense and sent to Cincinnati for four-day study periods in chemical warfare under the tutelage of faculty members of the College of Medicine and staff members of the college's Kettering Laboratory for Applied Physiology. The first group to take the course, consisting of 30 physicians, was sent to Cincinnati several weeks ago from the New England and Middle Atlantic States and New York. Later groups will be selected from other sections of the country.

* * *

Ohio physicians recently called to active military duty include: Dr. W. Orville Ramey, Cincinnati, internist for a medical specialist unit in the Naval Reserve; Dr. M. F. Axthelm, Caledonia, a lieutenant in the Army Medical Corps; and Dr. Paul Yordy, Dayton, who has joined a Navy medical specialist unit at San Diego.

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Instructions for the special care of babies during an air raid, based on experience accumulated in England, have been issued by the American Committee on Maternal Welfare. In condensed form, some of the points are: When the signal sounds, take the baby immediately to a shelter or to the safest room in the house, where he may be protected from flying debris; be sure to take necessary garments for warmth and enough milk, water, and extra diapers; block the baby's ears with cotton wool to minimize the effects of concussion; if outdoors, place the baby on the ground beside a wall or in a ditch, put plenty of covers or pillows over and under him, and lie down beside him. The mental aspects of air raids are, of course, emphasized.

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The drastic curtailment in the use of rubber for non-defense purposes has been relaxed, on order of the War Production Board, to permit the manufacture of items necessary in medical and dental practice. The use of latex in the making of certain medical and dental supplies was also permitted. Both of these lists of permitted articles were subject to quantitative limitations.

* * *

During actual combat, the medical department has control over about one-fourth of army personnel, according to figures cited by Maj. Roger G. Prentiss, Jr., of the Surgeon General's office at the recent Columbus War Sessions of the American College of Surgeons. In the "zone of the interior", the major said, hospital bed space is maintained for about five per cent of the army personnel—four per cent in stations, and one per cent in general hospitals. This may seem high, he declared, but it is not relatively high when one considers the fact that sick men cannot be hospitalized in quarters and the further fact that many army activities are comparatively more hazardous than those in civilian life.

* * *

Information that the following Ohio Army medical officers are now on overseas duty has been received in offices of the State Association: Lt. Stanley E. Turel, Cleveland; Capt. Maurice A. Archer, Medina; Capt. Louis Marcus, Toledo; Capt. Joseph I. Gould, Toledo; and Lt. H. E. Hengen, Amherst.

* * *

More than 1,000,000 voluntary donors will be bled during 1942 in the joint blood procurement program of the Army, Navy, and Red Cross. Physicians interested in full-time positions as heads of blood procurement teams are advised to contact the technical supervisor of the nearest Red Cross blood donor center. In Ohio these are Dr. Paul I. Hoxworth, Cincinnati General Hospital, and Dr. Carl Lenhart, 2065 Adelbert Rd., Cleveland.

* * *

The D'Amore family of Masury has contributed its full share to the personnel of Uncle Sam's Army Medical Corps in World War II. Dr. Amanto P. D'Amore is a captain at Fort Jackson, S. C. His brother, Dr. Adanto A. S. D'Amore, has served four years in the Army medical branch and is with the 501st Parachute Battalion at Fort Benning, Ga. A third brother, Arcangelo, who is a medical student, is taking R.O.T.C. training at the Army Medical Field School, Carlisle Barracks, Penn.

CHIEF MEDICAL OFFICER OF SELECTIVE SERVICE TO BE GUEST SPEAKER

ONE of the current questions of vital interest to all physicians is that regarding the medical and health aspects of the nation's war program. In order to give the medical profession of Ohio first-hand and authoritative information on this question, the Ohio State Medical Association will present Col. L. G. Rowntree, M.C., United States Army, Washington, D.C., as one of its guest speakers at the Ninety-Sixth Annual Meeting in Columbus, April 28, 29 and 30.

COLONEL ROWNTREE

Colonel Rowntree will speak on "Health and National Defense" at a general session on Wednesday afternoon, April 29, and will take part in a quiz-discussion session on "Nutrition and National Defense" on Wednesday evening.

At the time he was assigned to the position of Chief, Medical Division, National Selective Service Headquarters, Colonel Rowntree was director of the Philadelphia Institute of Medical Research.

* * *

Faced with a shortage of registered nurses throughout the country, because so many professional nurses are being called for active duty by the Army, Navy, and U.S. Public Health Service, the Nursing Council on National Defense is seeking 50,000 young women to enter schools of nursing during 1942. A high school diploma is the only requirement for most of the 1,300 approved schools of nursing in America, although a year or more of college education is considered valuable additional training, and at least two of the schools of nursing, Yale and Western Reserve, require college degrees for entrance.

Radical Changes in the Social Security Act Should Not Be Considered During War Crisis, Journal of the A.M.A. Says

THE American people should not be compelled, in the midst of immense sacrifices necessary to win the war, to consider radical proposals for changing the whole system of American living in health or in illness, *The Journal of the American Medical Association* for March 7 declares in an editorial analyzing proposed expansions of the Social Security Act relating to disability insurance and hospitalization payments. Such proposals, *The Journal* admonishes, should be considered in times when they can be given the deliberate, meticulous consideration which carefully weighs every aspect of the problem concerned and should not be submitted to the Congress and to the American people in a period fraught with anxiety as to whether or not the nation itself will survive.

The editorial, with an introductory paragraph, read as follows:

* * *

"The following editorial, because it deals with a matter of importance relating to possible current legislation, has been especially authorized and approved by the Board of Trustees of the American Medical Association.

"In his budget message to the second session of the Seventy-Seventh Congress, January 7, President Roosevelt recommended 'an increase in the coverage of old age and survivors' insurance, addition of permanent and temporary disability payments and hospitalization payments beyond the present benefit programs, and liberalization and expansion of unemployment compensation in a uniform national system.' On Jan. 20, 1942, a communication from the President was sent to the House of Representatives requesting $300,000,000 for 'extended unemployment compensation benefits.' This recommendation apparently is not related to the proposed disability and hospitalization payments but refers only to problems of unemployment occasioned by the changing of industrial plants from the production of peace time goods to the production of war materials. Officially, this is the status of a recommendation thrown by the President recently into the whirlpool of public opinion. The discussion of the problem is agitating leaders in the fields of prepayment plans for medical care and hospitalization, hospital management and medical practice.

BOARD'S PROPOSAL

"Various conferences in Washington with representatives of the Social Security Board yield the impression that the proposal of the President involves primarily a plan to increase taxation under the Social Security Act by 1 per cent, of which 0.5 per cent is to be paid by the worker and 0.5 per cent by the employer, with a view to providing every insured worker or his dependents during periods of hospitalization with the sum of $3 a day. The plan would involve also allowances in cash to cover disability equal to the present allowances for unemployment during periods of sickness. This proposal apparently had its origin in the report of the Technical Committee on Medical Care, which introduced the so-called National Health Program in the National Conference in Washington in 1938. At that time the House of Delegates of the American Medical Association held a special session to give consideration to the national health program. The Reference Committee on Consideration of the National Health Program in a report adopted by the House of Delegates said:

"Your committee approves the principle of hospital service insurance which is being widely adopted throughout the country. It is susceptible of great expansion along sound lines, and your committee particularly recommends it as a community project. Experience in the operation of hospital service insurance or group hospitalization plans has demonstrated that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care.

"The committee also said:

"In addition to insurance for hospitalization your committee believes it is practicable to develop cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness. Agencies set up to provide such insurance should comply with state statutes and regulations to insure their soundness and financial responsibility and have the approval of the county and state medical societies under which they operate.

"Your committee is not willing to foster any system of compulsory health insurance. . . .

"Considering particularly the question of insurance against loss of wages during sickness, the report of the committee said:

"In essence, the recommendation deals with compensation of loss of wages during sickness. Your committee unreservedly endorses this principle, as it has distinct influence toward recovery and tends to reduce permanent disability. It is, however, in the interest of good medical care that the attending physician be relieved of the duty of certification of illness and of recovery, which function should be performed by a qualified medical employee of the disbursing agency.

WAGNER BILL

"Following the meeting of the House of Delegates in 1938 came the recommendations of the Interdepartmental Committee to Coordinate Health and Welfare Activities. This group recommended the development of social insurance to insure partial replacement of wages during temporary or permanent disability. Senator Robert Wagner of New York, in the well known proposed National Health Act, S. 1620, and in subsequent proposed legislation, also endeavored to include plans for disability compensation and indeed to provide medical service in addition to compensation.

"In numerous addresses and in hearings before legislative bodies since 1938, Mr. Arthur J. Altmeyer, chairman of the Social Security Board, has continued frequently to suggest cash benefits to persons unemployed because of sickness and the provision of constructive social services to supplement cash aids, including medical care. Obviously every proposal for expansion of the social security program must, therefore, be viewed in the light of the ultimate goal set by Mr. Altmeyer. Even though the House of Delegates of the American Medical Association apparently approved unreservedly the principle of cash benefits for those sustaining loss of wages because of sickness, the provision of cash payments of $3 a day to the worker who is hospitalized must be considered as part of a movement toward complete plans for compulsory sickness insurance on either a cash or a medical service basis. As evidence of the apparent inseparability between disability benefits and medical and hospital care, workmen's compensation acts under which an injured worker is supplied with cash benefits for disability and also with necessary medical and hospital care, are cited.

PRESENT CONDITIONS

"The new proposals of the President, apparently emanating from the Social Security Board, must not be viewed in the light of circumstances as they prevailed in 1938 but in the light of conditions as they exist today. The intervening period has witnessed an extraordinary expansion in voluntary hospitalization insurance and in so-called medical service plans. Today some 15 million persons are insured against the costs of hospitalization in a variety of agencies, including private insurance corporations, mutual nonprofit plans like the Associated Hospital Service of New York, and hospitalization plans set up on a nonprofit basis in various states. At least fourteen states and numerous counties have developed voluntary plans to cover the costs of medical care. An extensive experimentation is now in progress which should lead ultimately, if not too greatly disturbed, to the development of procedures distinctly American in their characteristics and wholly capable of meeting the needs for medical and hospital service. These are likely to be adapted to the American system of government rather than modeled after those plans of medical care and hospitalization which have prevailed in foreign countries, and which have been developed under concepts that are socialistic, communistic or totalitarian rather than democratic.

"The Annual Report of the Social Security Board for 1940 indicates that that agency contemplates nothing short of a complete system of compulsory sickness insurance. Thus the report states:

> "Studies of illness and disability as a cause of economic insecurity were continued during the year, and consideration was given to proposals for extending the social security system to include the risk of ill health and disability.

"Moreover there are indications that the Social Security Board has been much concerned with the question

> whether the development of a program of medical care in connection with the three assistance programs under the Social Security Act would assist or hamper the development of a broader program of medical care for those groups in our population who are not now able to obtain needed services.

In fact, Mr. Arthur J. Altmeyer stated his point of view positively to the Congress when he said in July, 1941:

> "Our eventual goal should be the establishment of a well rounded system of social insurance to provide at least a minimum security to individuals and their families due to unemployment, sickness, disability, old age and death. In addition, we must provide a series of constructive social services to supplement the cash aids provided under social insurance. Medical care should be available to individuals and their families so that we may build a healthier, happier nation. Such a system of medical care would be instrumental in reducing the costs of cash payments for sickness and disability.

COMPULSORY SICKNESS INSURANCE

"From these statements it is clear that the goal of the Social Security Board is definitely a nationwide system of compulsory sickness insurance. Obviously, then, every proposal for expansion of social security must be considered in its relation to that goal.

"Specifically, nevertheless, the present proposal is for the payment of $3 for each day the worker is hospitalized. This blunt statement without qualification must, of course, be translated into proposed legislation before all its implications can be fathomed. The proponents of voluntary hospitalization and medical service plans have felt that the enactment of such legislation would sound the death knell of their voluntary proposals. Even they, however, are not of one mind in their approach to the problem. Indeed, some have indicated that they might not look askance on the proposal if the technic concerned would involve payment of the cash benefit directly to such plans rather than directly to the insured patient. This would mean recognition by the government of the prepayment plans as the official agency in the field of hospitalization and medical care. Representatives of medical and hospital service plans definitely propose that the Federal Security Administrator issue a complete endorsement of such existing prepayment plans and that he urge all communities to form similar organizations. Such a pronouncement would be premature. Most of these plans are still largely experimental; they cover, for the majority of the insured, only hospitalization and surgical fees. Few of these plans have yet secured much more than a slight majority approval of either the medical profession or the public which they would serve. Many questions as to the cost of promotion and maintenance and the character of the control of voluntary hospitalization and medical care plans remain unanswered. These were no doubt some of the considerations which caused the House of

Delegates of the American Medical Association, at its 1941 session, to request the Bureau of Medical Economics to make a comparative study of medical service plans for submission to the House of Delegates in 1942. Until voluntary efforts have shown themselves incapable of meeting existing needs, they should be encouraged rather than discouraged or even destroyed by forms of government competition or intervention. By contrast government plans are costly to administer and inefficient in operation; they are even more experimental than the voluntary plans, and they function on such a huge scale as to make relief from them well nigh impossible once they are established.

OBJECTIONS LISTED

"Consideration of the proposed $3 per diem payment for hospitalization costs for workers and their dependents must depend, therefore, first on the merits of the proposal itself and second on its relation to the proposed goal of a complete compulsory sickness insurance plan. Among the important objections to the $3 per diem payment plan is the fact that the contribution would cover only a portion of the cost of necessary hospital care as defined in most of the voluntary hospitalization plans. The establishment by the government of a fixed price per day for hospital services would inevitably tend here, as always in the past, to cause deterioration of such service to meet the fixed price. Workers would feel, no doubt, that the payment of a $3 fee was the government's evaluation of what proper hospital service should cost. While the fee might be nearly adequate in rural areas, it would, of course, be wholly inadequate in urban centers.

"The voluntary hospitals of the United States now provide an essential service to the American people. These hospitals have grown as a community interest; many of them are founded in that tenet of most religions which states that the care of the sick is one of the highest moral functions that mankind can fulfill. Federal payment and control of hospitalization costs would destroy local, religious and private community interest in the maintenance of voluntary hospitals, thus jeopardizing their future and inhibiting the initiative to assist them. The proposal involves, as one may observe from the statements of representatives of the Social Security Board, increased federal funds for new hospital construction. Already such appropriations as the government has made have tended to freeze the flow of bequests and donations for nonprofit voluntary hospitals. With these concepts in mind, representatives of various organizations in the field of the hospital are emphasizing in this critical time that the voluntary hospitals are a national asset of incalculable value, that their efficiency is traceable in large part to their freedom of action under local control and that proposed legislation should have most careful consideration from the professional and hospital point of view before it is offered to the Congress.

"The American people find themselves today in the midst of a war which, this time, is in all truth a war for the salvation of democracy. Unless that war is won, such 'social gains' as may have been secured will disappear along with the fundamental freedoms which prevail only under a democratic system of government. Those fundamental freedoms are more vital to the nation than any expansion of public services, or the engraftment on the body politic of new systems of payment for work, or improvement in the manner of living, or security developed by enforced savings through compulsory insurance. The American people are not averse to immense sacrifice—even to the ultimate sacrifice—if it will win the war. They should not be compelled, in the midst of such sacrifice, to consider radical proposals for changing the whole system of American living in health or in illness. The proposed expansions of the Social Security Act related to medical care should be considered in times when they can be given that type of deliberate, meticulous consideration which carefully weighs every aspect of the problem concerned. Such proposals should not be submitted to the Congress and to the people in a period fraught with anxiety as to whether or not the nation itself will survive. Let us at least postpone these proposals until the decision as to whether or not our democracy can successfully defend itself against ruthless totalitarianism is clear."

Appointments To A.M.A. Staff

The Board of Trustees of the American Medical Association has announced a number of appointments to key posts in the Headquarters Staff of the A.M.A. They include: Dr. Herman G. Weiskotten, dean of Syracuse University College of Medicine, secretary of the Council on Medical Education and Hospitals to succeed the late Dr. William D. Cutter; Dr. A. E. Smith, who has been a member of the staff of the Council on Pharmacy and Chemistry, acting secretary, succeeding Dr. T. G. Klumpp, resigned; J. W. Holloway, Jr., director of the Bureau of Legal Medicine and Legislation. Mr. Holloway has been acting director since the retirement of Dr. W. C. Woodward.

National Auxiliary Meeting

The Annual Convention of the Woman's Auxiliary to the American Medical Association will be held at Atlantic City, June 8-12. Headquarters will be at Haddon Hall. Members of the Auxiliary who are planning to attend are advised to make requests for hotel reservations immediately.

In Memoriam

Charles Ignatius Anders, M.D., Old Fort; University of Wooster, Medical Department, Cleveland, 1894; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 8. A native of Old Fort, Seneca County, Dr. Anders practiced there for nearly 50 years. He was a member of the Masonic Order.

John B. Argadine, M.D., Toledo; Cincinnati College of Medicine and Surgery, 1893; aged 74; died February 22. Dr. Argadine practiced in Toledo for many years. A brother survives.

Irwin Isadore Abrams, M.D., Sunmount, N.Y.; Wayne University College of Medicine, Detroit, 1934; aged 34; former member of the Ohio State Medical Association and the American Medical Association; died February 6. Dr. Abrams, a native of Toledo, was resident physician at the Veterans' Administration Facility Hospital, Sunmount, N.Y. For several years he was resident physician at Jane Case Hospital, Delaware. His parents, a sister and a brother survive.

John E. Bayliff, M.D., Uniopolis; Pulte Medical College, Cincinnati, 1887; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died February 28. Dr. Bayliff retired because of ill health last spring, after having practiced in Uniopolis for 50 years. He was previously located in Wapakoneta and St. Paris. Dr. Bayliff was a member of the Knights of Pythias. His widow and two sons survive.

Walter Brown, M.D., Hamilton; Medical College of Ohio, Cincinnati, 1875; aged 92; former member of the Ohio State Medical Association and the American Medical Association; died February 13. Dr. Brown, who retired in 1923, practiced in Hamilton for 45 years. He had previously practiced in Ross County and in Cincinnati.

Dora Van Buren Burkett, M.D., Columbus; Ohio Medical University, Columbus, 1902; aged 70; member of the Ohio State Medical Association and the American Medical Association; died March 2. A retired lieutenant-colonel in the Medical Corps of the U. S. Army, Dr. Burkett served in the Spanish-American War as captain in the medical corps of the Ohio National Guard. During World War I he went overseas as a major in the sanitary division, and was discharged with the rank of lieutenant-colonel. He was later reappointed a lieutenant-colonel in the Ohio National Guard, and later chief surgeon. Dr. Burkett retired in 1937. He was a member of Kappa Sigma and Alpha Mu Pi Omega. His widow, a brother and two sisters survive.

Maurice Lincoln Fisher, M.D., Mansfield; Yale University School of Medicine, New Haven, Conn., 1924; aged 42; member of the Ohio State Medical Association; Fellow of the American Medical Association, American College of Surgeons and American Association for Thoracic Surgery; died March 18. Dr. Fisher was medical director of the Richland County Tuberculosis Sanatorium for three years, and had been in Mansfield for six years. He was previously located in Louisville, Ky. Dr. Fisher was a member of the Presbyterian Church and the Rotary Club. His widow, his mother, a sister and a brother survive.

George Leonard Haefele, M.D., Cleveland; Western Reserve University School of Medicine, 1885; aged 79; died February 13. Dr. Haefele retired 10 years ago, after having practiced in Cleveland for 47 years. During World War 1 he was a lieutenant in the Medical Corps of the U. S. Army. Surviving are his widow, two sons and a daughter.

Daniel Crumlish Handley, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1897; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died January 30. Dr. Handley, a former Hamilton County coroner, practiced in Cincinnati for 45 years. He served overseas in the Medical Corps of the U. S. Army in World War I. His widow and two sons survive.

Francis Xavier McNamara, M.D., Cleveland; Cleveland Medical College, Homeopathic, 1897; University of Wooster, Medical Department, Cleveland, 1904; aged 68; former member of the Ohio State Medical Association and the American Medical Association; died February 24. Dr. McNamara practiced in Cleveland for nearly 45 years. He was a member of the Elks, Knights of Columbus, Catholic Order of Foresters, Fraternal Order of Eagles and the Catholic Church. A daughter and two sons survive.

John W. Obrist, M.D., Portsmouth; Medical College of Ohio, Cincinnati, 1889; aged 79; member of the Ohio State Medical Association and the American Medical Association; died February 26. An active practitioner for 53 years, Dr. Obrist had been located in Portsmouth since 1904. He had previously practiced at Beaver. Dr. Obrist was a member of the staff of Portsmouth General Hospital. His fraternal affiliations include the Masonic Order and the Odd Fellows Lodge. Dr. Obrist was a member of the Evangelical Church. Two daughters and a son—Dr. George E. Obrist, Portsmouth, survive.

James Emmet Robins, M.D., Buffalo; Starling Medical College, Columbus, 1895; aged 71; died February 14. Dr. Robins practiced in Guernsey County for 47 years. He was county coroner from 1924 to 1932. Dr. Robins was a member of the Lutheran Church. A son and a sister survive.

David Selman, M.D., Cleveland; Western Reserve University School of Medicine, 1911; aged 56; former member of the Ohio State Medical Association and the American Medical Association; died February 3. A veteran of the Medical Corps of the U. S. Army in World War I, Dr. Selman had practiced in Cleveland for nearly 30 years. He was one of the founders of the Beechmont Country Club, and formerly was a national officer of Zeta Beta Tau fraternity. Surviving are his widow, three brothers, and six sisters.

Herbert Ralph Stockwell, M.D., Ann Arbor, Mich.; Ohio State University College of Medicine, 1928; aged 41; member of the Ohio State Medical Association and Fellow of the American Medical Association; died February 25. Dr. Stockwell was taking special work at the University of Michigan Medical School at the time of his death. He had practiced in Dayton from 1928 to 1941, where he was a member of the staff of Miami Valley Hospital. Dr. Stockwell was a Mason. Surviving are his parents, his widow, a daughter and a sister.

John Franklin Sutton, M.D., Bellaire; University of Cincinnati College of Medicine, 1920; aged 59; member of the Ohio State Medical Association and the American Medical Association; died February 9. A native of Canton, Dr. Sutton practiced there for two years, moving to Bellaire in 1922. He was a member of the Masonic Order and the First Brethren Church. His widow, a son, a brother and a sister survive.

Charles Fremont Turney, M.D., Columbus; Starling Medical College, Columbus, 1880; aged 86; died February 2. Dr. Turney retired three years ago, after having practiced in Columbus for nearly 60 years. Formerly active in community affairs, he had been a member of the city council and the board of education. Dr. Turney was a Mason. His widow, two sons, and a daughter survive.

Roland A. Willett, M.D., Elmore; Bellevue Hospital Medical College, New York, 1888; aged 76; member of the Ohio State Medical Association and Fellow of the American Medical Association; died February 27. Dr. Willett practiced in Elmore for over 50 years. He always took a keen interest in civic affairs, having served on the village council and been mayor in 1915. Dr. Willett was a member of the board of education for 20 years, and for 16 years was its president. He was largely instrumental in the organization of the Ottawa County Board of Health, and was president at the time of his death. Surviving are his widow and two sons, one of whom is Dr. Gaillard P. Willett, Elmore.

Coming Meetings

Ohio State Medical Association, Columbus, April 28-30.

American Medical Association, Atlantic City, June 8-12.

American College of Physicians, St. Paul, April 20-24.

American Congress of Obstetrics and Gynecology, St. Louis, April 6-10.

American Association of Industrial Physicians and the American Industrial Hygiene Association, Cincinnati, April 13-17.

American Federation for Clinical Research, Minneapolis, April 20-21.

American Association of Anatomists, New York, April 1-3.

American Association of Pathologists and Bacteriologists, St. Louis, April 2-3.

American Society for Experimental Pathology, Boston, April 1-3.

American Surgical Association, New Orleans, April 6-8.

Ohio Society of Anesthetists, Columbus, April 30.

Gifts for Research Received By University of Cincinnati

Among gifts recently accepted by the Board of Directors of the University of Cincinnati were the following: $4,000 from E. R. Squibb & Sons; $4,000 from Eli Lilly & Co., and $500 from the Martha Leland Sherwin Memorial Fund, all to aid Dr. Tom D. Spies, associate professor of medicine, in his nutrition studies; $3,500 for the Porter Fund in obstetrics from an anonymous donor; $2,400 to aid the work being done under Dr. Mont R. Reid, professor of surgery, "to improve the present method of diagnosis and treatment of cancer," from the National Advisory Cancer Council; $9,500 from an anonymous donor to the heart station fund in the department of internal medicine; $1,200 from the Lederle Laboratories, Inc., for research in the College of Medicine under Dr. Milan A. Logan, and $4,000 from Mead Johnson and Company for research in nutrition.

The Board has entered into a contract with the U. S. Government by which up to $29,790 will be paid through the Office of Scientific Research Development, Office of Emergency Management, in 1942, for clinical and bacteriological studies in the College of Medicine of contaminated wounds and methods of treatment with the newer chemotherapeutic agents.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

"Congenital Pyloric Stenosis", was the subject presented at a meeting of the Butler County Medical Society, February 26, at the Fort Hamilton Hospital, Hamilton. Dr. Frank C. O'Neill, Middletown, discussed diagnosis and medical aspects, and Dr. E. O. Bauer, Middletown, surgical treatment.—Fred W. Brosius, M.D., president.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during March:

March 3—Meeting under joint auspices of the Academy and the Council on Diabetes of the Cincinnati Public Health Federation. "Water and Electrolyte Distribution in Diabetes Mellitus", Dr. F. William Sunderman, chief of diabetic clinic, University of Pennsylvania Hospital Philadelphia.

March 17—"Endocrine Therapy in Gynecology", Dr. Richard W. Telinde, professor of gynecology, Johns Hopkins University School of Medicine, Baltimore.—Bulletin.

HIGHLAND

Dr. Robert Conard, Wilmington, chairman, Committee on Medical Preparedness, Ohio State Medical Association, spoke on "The Medical Profession and the War", at a meeting of the Highland County Medical Society, March 4, at Hotel Parker, Hillsboro.

"Red Cross First Aid and Preventive Health Measures", was the topic discussed by Miss Grace Willson, county health nurse, at a meeting of the Woman's Auxiliary, March 4, at Highland House, Hillsboro.—News clipping.

Second District

(COUNCILER: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Dr. Morris Fishbein, editor, *The Journal of the American Medical Association,* was guest speaker at the annual dinner meeting of the Clark County Medical Society, February 12, at the Hotel Shawnee, Springfield. Dr. Fishbein spoke on "American Medicine and the War". Guests at the dinner included a number of physicians from adjoining counties.

History of fever therapy and results obtained through its application in the treatment of disease were reviewed by Dr. H. W. Kendell, director of the Kettering Institute of Fever Therapy, Dayton, at a meeting of the society, February 23, at Springfield.—News clipping.

Wives of members were guests at a buffet dinner meeting of the society, March 11, at the Springfield Country Club. Dr. Emmerich von Haam, professor of pathology, Ohio State University College of Medicine, Columbus, gave the address of the evening, entitled "Burlesque of the Research Worker".—C. Walker Munz, M.D., secretary.

MIAMI

Dr. Samuel E. Flook, Dayton, spoke on "Diagnosis of Hip Joint Disease in Children", at a meeting of the Miami County Medical Society, March 6, at the Piqua Memorial Hospital. There was also a general discussion of the effect of the war on the medical profession.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

"Toxemias of Pregnancy", was the topic discussed by Dr. J. Hofbauer, associate professor of obstetrics, Johns Hopkins University School of Medicine, Baltimore, at a meeting of the Montgomery County Medical Society, March 6, at Dayton.—Bulletin.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

MARION

Colonel H. E. Boucher, Columbus, chief, medical section, State Selective Service, spoke on "The Need of Doctors by the Government", at a meeting of the Marion Academy of Medicine, March 3, at Hotel Harding, Marion.

A group of wives and widows of members of the Academy met for luncheon at the Hotel Harding, February 18, and decided to form a Woman's Auxiliary.—News clipping.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

HENRY

Dr. Harvey R. Wynn, Findlay, was guest speaker at a meeting of the Henry County Medical Society, Hotel Holgate, Holgate, February 24. A meeting of the Woman's Auxiliary was held the same evening.—News clipping.

LUCAS

The Toledo Academy of Medicine presented the following programs during March:

March 6—General Meeting. Symposium on "Civilian Medical Defense". Speakers: Drs. E.

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March 13—Section of Pathology, Experimental Medicine and Bacteriology. "Diagnosis and Treatment of Brucellosis", Dr. I. Forest Huddleson, professor of bacteriology and experimental medicine, Michigan State College.

March 20—Medical Section. "Sex Hormones, Physiology, Diagnosis and Therapy", a motion picture with sound, presented by the Research Laboratories of Parke, Davis and Company.

March 27—Surgical Section. "Carcinoma of the Prostate", Dr. Reed M. Nesbit, professor of urology, University of Michigan Medical School, Ann Arbor.—Bulletin.

SANDUSKY

Dr. B. V. Scheib, Toledo, spoke on "Treatment of Fractures", at a meeting of the Sandusky County Medical Society, at Fremont, February 27.—News clipping.

WOOD

"Burns and Their Treatment", was the topic discussed by Dr. O. W. Burkholder, Toledo, at a meeting of the Wood County Medical Society, February 19, at Bowling Green. Dr. Burkholder has made an intensive study of burns for the past several years, and his discussion was authoritative and timely. He emphasized the general systemic treatment as a necessary background to whatever local treatment was used. Of the many procedures available, one should be chosen that is within the capacity of the hospital in which the treatment is undertaken, Dr. Buckholder said. He decried the use of ointments, and oils as first aid by lay workers, suggesting instead the simple covering of the lesion with sterile or at least clean cloth bandages, leaving the surgeon free to choose his own application. Dr. Burkholder favored tannic acid spray, followed by silver nitrate solution. A rising vote of thanks was given Dr. Burkholder for his valuable talk.—D. R. Barr, M.D., correspondent for *The Journal*.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Carl C. Downs, county relief director, spoke on "Medical Problems in Relief Administration", at a meeting of the Ashtabula County Medical Society, February 24, at Ashtabula General Hospital.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during March:

March 6—Clinical and Pathological Section. "A Case of Blastomycosis Cutis", Dr. E. W. Netherton; "An Unusual Case of Cryptic Anaemia", Dr. Russell L. Haden; "A Case of Spinal Cord Tumor—Diagnostic Problems", Dr. A. T. Bunts; "Ureteral Calculus with Gastro-Intestinal Symptoms", Dr. E. N. Collins; "An Unusual Case of Bronchiogenic Carcinoma, Surgically Treated", Dr. H. Scott Van Ordstrand.

March 13—Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Cardiac and Peripheral Determinants of Hemorrhagic Shock", Dr. C. J. Wiggers, Dr. J. M. Werle and P. C. Shea, Jr., A.B.; "Quinidine Sulfate and Ventricular Fibrillation", Dr. R. Wegria and N. D. Nickerson, B.S.; "Ventricular Fibrillation Induced by Coronary Occlusion", Dr. A. Guevara Rojas, Dr. D. Sodi Pallares, and A. S. Harris, Ph.D.

March 18—Industrial Medicine and Orthopedic Section, combined with Regional Fracture Committee of the American College of Surgeons. "Anesthesia in Orthopedic Surgery", Dr. B. B. Sankey; "Demonstrations in Fracture Cases", Dr. A. H. Reed; "Fractures About the Ankle", Wallace Duncan; "Non-Union of Fractures", Dr. C. H. Heyman; "Treatment of Fractures of the Spine", Dr. C. G. Barber; "Anatomical and Clinical Considerations of Protruded Intervertebral Disc", Dr. Spencer Braden; "Operated Treatment of Fractures of the Patella and Treatment of Fractures of the Carpal Bones", Dr. Paul B. Steele, professor of orthopedics, University of Pennsylvania School of Medicine, Philadelphia.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. Roy W. Scott, professor of clinical medicine, Western Reserve University School of Medicine, Cleveland, spoke on "Clinical Aspects of Arteriosclerosis as They Pertain to the Management of Hypertension", at a meeting of the Mahoning County Medical Society, March 17, at Youngstown.—Bulletin.

PORTAGE

Dr. Wm. B. Seymour of the Medical Department of Western Reserve University School of Medicine spoke on "The Fundamentals of Physiotherapy", March 5, at a meeting of the Portage County Medical Society, at Robinson Memorial Hospital, Ravenna.—Emily J. Widdecombe, M.D., secretary.

STARK

"Tuberculosis", was the subject discussed at a meeting of the Stark County Medical Society, March 12, at the Elks Club, Canton, by two members of the faculty of the University of Michigan Medical School. Dr. Cameron Haight

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(1) 1939. Agr. Expt. Sta. Univ. Wisconsin, Bul. 444.
1939. Univ. Maryland Agr. Expt. Sta. Bul. 425.
1937. U. S. Dept. Agr. Farmers Bul. 1253.
1937. Univ. Illinois Agr. Expt. Sta. and Extension Service in Agr. and Home Econ. Circular 472.
1929. Univ. Maryland Agr. Expt. Sta. Bul. 318.

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spoke on surgical treatment, and Dr. John Barnwell on medical treatment.—Harold J. Bowman, M.D., secretary.

SUMMIT

Dr. Richard H. Lyons, assistant professor of internal medicine, University of Michigan Medical School, Ann Arbor, spoke on "Mechanism and Treatment of Cardiac Decompensation", at a meeting of the Summit County Medical Society, March 3, at the Mayflower Hotel, Akron.

A motion picture travelogue was shown at a meeting of the Woman's Auxiliary, March 3, at the City Hospital Nurses' Home.—Bulletin.

TRUMBULL

Members of the Woman's Auxiliary to the Trumbull County Medical Society sponsored a dance at the Big White Barn, near Leavittsburg, February 28. Proceeds are to be used toward the $100 scholarship fund for nurses' training at the Warren City Hospital.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

COSHOCTON

Civilian defense matters were discussed at a meeting of the Coshocton County Medical Society, February 17, at Coshocton City Hospital.—News clipping.

HARRISON

Dr. E. L. Miller was host to the Harrison County Medical Society February 4, at his home in Bowerstown. There were ten members present. Dr. D. H. Downey, Dover, was guest speaker.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. J. R. Sprague, Athens, spoke on "Ectopic Pregnancy", at a meeting of the Athens County Medical Society, March 3, at Nelsonville. He presented several case reports, including one case of abdominal pregnancy.—C. R. Hoskins, M.D., secretary.

MUSKINGUM

Members of the Muskingum County Medical Society honored Dr. G. B. Trout, Zanesville, March 4, on the occasion of his 50th anniversary as a practicing physician. Principal speaker at the meeting was Dr. Warren G. Harding, Columbus. His topic was "Medical Lore and Habits of Australian Aborigines". Dr. Sterling W. Obenour and Dr. Curtis Ormond discussed civilian defense problems.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

Dr. F. J. Potter, Parkersburg, W. Va., spoke on "X-Ray Therapy", at a meeting of the Washington County Medical Society, February 11, at Hotel Lafayette, Marietta. W. W. Gadd, county relief director, discussed "Medical Care of Indigent Patients".

Mrs. Herman Becker spoke on Red Cross activities at a meeting of the Woman's Auxiliary, February 11, at the Betsy Mills Club, Marietta. —News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

An address entitled "Latest Views on Cancer —Personal Research", was given by Dr. Andre Crotti, Columbus, at a meeting of the Hempstead Academy of Medicine, March 9, at the Portsmouth General Hospital.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during March:

March 2—"Pain of Dental Origin", Harry O. Spangenberg, Jr., D.D.S., instructor in X-ray diagnosis and preventive dentistry, Ohio State University College of Dentistry.

March 16—"Acute Suppuration of the Lungs and Pleura", Dr. S. O. Freedlander, assistant professor of surgery, Western Reserve University School of Medicine.

March 23—Section in General Medicine. "The Gastro-Intestinal Invalid", Dr. A. A. Hall; "Sex Hormones", a technicolor movie by Parke Davis and Company.—Bulletin.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ERIE

Dr. George Stimson led a discussion on "Tuberculosis", at a meeting of the Erie County Medical Society, February 26, at Sandusky.—News clipping.

LORAIN

"Medical Civil Defense in England", was the topic discussed by Dr. Kenneth C. McCarthy, Toledo, at a meeting of the Lorain County Medical Society, March 10, at the Elks Restaurant, Elyria.—L. H. Trufant, M.D., secretary.

RICHLAND

Dr. W. W. Shapiro, associate professor of medicine, Loyola University School of Medicine, Chicago, spoke on "Diabetes", at a meeting of the Richland County Medical Society, March 19, at the Mansfield General Hospital.—Chas. G. Brown, M.D., secretary.

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Industrial Physicians Will Hold National Meeting in Cincinnati, Hotel Gibson, April 13-17

The Twenty-Seventh Annual Meeting of the American Association of Industrial Physicians and Surgeons and the Third Annual Meeting of the American Industrial Hygiene Association, will be held at the Hotel Gibson, Cincinnati, Monday through Friday, April 13-17.

Because of the vital importance of industrial medicine in the war, these meetings are of more than usual significance. An excellent program has been arranged, including discussions and reports of original investigation centering around problems that are of immediate concern to American industry in forging the sinews of war. Physicians, engineers and nurses will be offered instruction and information in the maintenance of the health of the men whose work will largely determine the length and outcome of this struggle.

The program on the first day (Monday) consists of medical, dermatological and surgical clinics at the Cincinnati General Hospital. Subjects include: Hypertensive vascular disease in relation to industry; cardiovascular syphilis in the active period of life; polyneuritis—toxic, infectious or nutritional; industrial dermatoses; management of head injuries; treatment of fractures; compression treatment of burns; bacteriologic study of wounds and burns; use of whole blood and plasma.

Program for Tuesday includes panel conferences on the treatment of burns; administration of health problems; treatment of the wound in compound fracture, and a symposium on "Medical Service for the Small Plant".

On Wednesday there will be a symposium on "Lead Poisoning", and discussions of experimental studies and survey in this field.

Subjects to be presented on Thursday include: Metabolism of nitroparaffins; absorption, retention and excretion of fluorides at normal and abnormal levels of intake; vitamins and solvent-vapor poisoning; inhibitor mechanisms against the action of free silica; toxicity of aluminum.

Topics to be discussed on Friday morning include: Some recent observations in phosphorus toxicity; clinical effects of industrial exposure to tellurium fumes; health hazards in steel mills.

The annual dinner of the American Association of Industrial Physicians and Surgeons will be held at 7:30 P.M., Wednesday evening.

Among the scheduled speakers are many well known for their accomplishments in the field of industrial medicine. They include: Dr. T. Lyle Hazlett, Pittsburgh; Dr. A. J. Lanza, New York; Dr. Victor Heiser, New York; Dr. L. U. Gardner, Saranac Lake, N.Y.; Dr. Grover C. Penberthy, Detroit; Dr. Donald E. Cummings, Denver. Cincinnati physicians appearing on the program are: Drs. S. E. Dorst, John H. Skavlem, Johnson McGuire, Arthur Freedman, J. H. Kotte, Milton Rosenbaum, Leon Goldman, Joseph Evans, John A. Caldwell, Vinton E. Siler, W. A. Altemeier, Paul Hoxworth, Ralph G. Carothers, Lester W. Sanders, William F. Ashe, Robert A. Kehoe, Willard Machle, F. F. Heyroth.

Dr. Kehoe is general chairman. Copies of the program may be obtained by writing Armour G. Park, convention manager, 540 North Michigan Ave., Chicago.

Plan Ohio Immunization Campaign; Toxoid To Be Furnished Free

The Ohio Department of Health is cooperating in a nation-wide campaign of immunization against diphtheria and smallpox, according to an announcement made March 12 by Dr. R. H. Markwith, state director of health.

In a communication to all local health commissioners, recommending that they discuss the details for a local immunization campaign with their respective local medical society, Dr. Markwith stated that the department will furnish toxoid for diphtheria immunization without charge to local health departments.

The complete text of the communication to local health commissioners follows:

"The Ohio Department of Health is cooperating in a nation-wide campaign for immunization against diphtheria and smallpox, by furnishing free toxoid to local health departments for the immunization against diphtheria of all children over nine months of age.

"In war times, it is especially important that all children be protected against diphtheria and smallpox, which are recognized as two preventable diseases.

"It will be impossible for the Ohio Department of Health to satisfactorily distribute smallpox vaccine. We hope each local health department will arrange to provide smallpox vaccine for this campaign from funds that would have been expended for toxoid, which will be furnished free of charge by the Ohio Department of Health.

"It is recommended that you discuss the details of this campaign with your local Medical Society, so that local physicians will assist in this campaign by immunizing and vaccinating a large number of children in their offices.

"As soon as you have completed your plans for this campaign, please advise me of the amount of toxoid you will need for the immunization of the children in your community.

"This is a real war time emergency, and we solicit the full cooperation of the personnel of your health department, and the practicing physicians of your community, in securing the immunization and vaccination of all children from nine months of age to ten years of age in your community."

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Northern Tri-State Medical Society To Meet at Fort Wayne, April 7

The Northern Tri-State Medical Association, composed of physicians in Indiana, Michigan and Ohio, will hold its Sixty-Ninth Annual Meeting at Fort Wayne, Indiana, on Tuesday, April 7. All meetings will be held in the Assembly Hall of the Chamber of Commerce. Registration will begin at 8:30 A.M., and the general program will start at 9:00 A.M. There will be a banquet at 6:00 P.M. Local arrangements are in charge of the Allen County (Ind.) Medical Society and the Woman's Auxiliary of the society will entertain the wives of the attending physicians during the meeting. Official headquarters will be the Hotel Keenan.

Topics to be discussed and names of the speakers follow:

"Treatment of Facial Injuries and Deformities", Dr. Claire L. Straith, Detroit, Mich.

"The Nature and Experimental Treatment of Hypertension", Dr. Irvine H. Page, Lilly Laboratory for Clinical Research, Indianapolis, Ind.

"Clinical Studies of the Pituitary Factor in Patients with Thyroid Disease", Dr. Paul Starr, assistant professor of surgery, Northwestern University Medical School, Chicago.

"Breech Presentation and Problems Associated Therewith", Dr. Nicholas Eastman, professor of obstetrics, Johns Hopkins University School of Medicine.

"Surgical Treatment of Arthritis", Dr. Paul B. Magnuson, associate professor of surgery, Northwestern University Medical School, Chicago.

"Sulfa Derivatives", Dr. Frederick Yonkman, professor of pharmacology and therapeutics, Wayne University College of Medicine, Detroit.

"The Importance of Allergy in General Practice", Dr. Jonathan Forman, Columbus.

"The A B C of Orthopedics", Dr. Beveridge H. Moore, Chief Surgeon, Shriner's Hospital, Chicago.

"Bone Growth in Early Infancy", Dr. Arthur H. Parmalee, clinical professor of pediatrics, Northwestern University Medical School, Chicago.

"Civilian Defense and the Doctor", Dr. William S. Keller, medical officer, Fifth Corps Area Office of Civilian Defense, Columbus.

Officers of the Association are: Dr. Lyman H. Rawles, Fort Wayne, president; Dr. E. Benjamin Gillette, Toledo, vice-president; Dr. F. R. Nicholas Carter, South Bend, secretary; Dr. Douglas Donald, Detroit, treasurer, and the following counsellors: Dr. G. O. Larson, LaPorte, Ind.; Dr. H. E. Randall, Flint, Mich.; Dr. O. P. Klotz, Findlay; Dr Howard Cummings, Ann Arbor, and Dr. Donald Cameron, Fort Wayne.

Care of Wounded at Pearl Harbor Is Described by N. Y. Physician

An interesting account of the surgical experiences at Pearl Harbor, written by Dr. John J. Moorhead, of New York, a civilian physician, who was in Honolulu at the time of the Japanese attack to give a course of lectures on "Traumatic Surgery", was published in the February 28 issue of *The Journal of The American Medical Association.* High spots of the paper were:

"1. A very large number of seriously wounded arrived at a military hospital within a period of five hours.

"2. The postoperative mortality was 3.8 per cent.

"3. Most of the fatalities were in the intra-abdominal group and among those depleted by shock and hemorrhage.

"4. No deaths resulted from gas gangrene.

"5. Purulent discharge was almost absent.

"6. The results were better than I had ever seen during 19 months in France when serving with the French, Belgian, and American medical formations.

"The outcome was dependent on: (a) Early receipt of the wounded—within the 'golden period' of six hours; (b) preliminary shock treatment; (c) adequate débridement with no primary suturing; (d) use of sulfonamide drugs in the wound and by mouth.

"Other factors which aided were: (a) absence of puttees; the incidence of driven-in dirty apparel was thereby lessened; (b) climatic conditions; (c) early hour of the attack; Sunday morning, and the men were clean and not war worn; (d) few flies.

"Our greatest defect was inability to give better preoperative shock treatment to a larger number of the seriously wounded.

"The outstanding features in this initial outbreak of World War II were the morale of the wounded, the unusual skill of the surgeons, and the devoted service of the nursing and other hospital personnel".

Dr. Moorhead also wrote at length of the invaluable part played by a mechanical locator in finding deeply lodged bullets and metallic particles. This device is an electromagnetic induction apparatus which had been developed for him by a technician of the New York City Transit System.

"On two successive days during a calm period", he said, "We gave the locator a severe test in our hospital group, and it proved helpful in 22 cases in which operations were performed by the chief of the surgical service and his assistants. The original apparatus is in Honolulu, but another even more responsive has been tested and soon the device will be available commercially".

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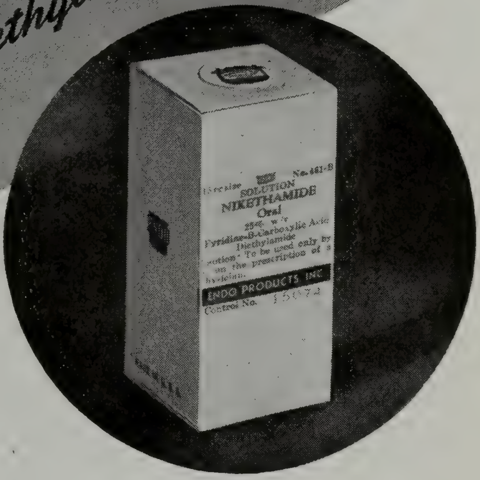

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Medical Problems of the War Discussed at Columbus Conference

More than 400 Ohio Physicians, hospital officials, and nurses attended the day-long war sessions held in Columbus, March 13, under sponsorship of the American College of Surgeons. Officers representing the Army, Navy, and Office of Civilian Defense took part in panels describing modern techniques in military medicine and the organization of the medical branches of their respective services.

Maj. Roger G. Prentiss, Jr., of the professional service division in the office of the Army Surgeon General; Capt. Frederick R. Hook, chief of the surgical service, United States Naval Hospital, Washington, and Col. William S. Keller, chief medical officer, Fifth Civilian Defense Region, Columbus, were the visiting panel participants.

At a noon luncheon presided over by Dr. Verne A. Dodd, Columbus, Maj. Prentiss described the organization of the Procurement and Assignment Service and answered questions from the audience about procurement of medical personnel for government service.

Dr. George Crile, Cleveland, presided at an evening dinner session and discussed the activities of the College of Surgeons in relation to the defense program.

Panel subjects for the medical sections of the meeting were: treatment of war injuries to the skull and face; treatment of war injuries to the chest; treatment of wounds of soft parts; fractures; treatment of burns; prevention and treatment of shock. Panel leaders included: Dr. Alexander T. Bunts, Cleveland; Dr. Paul G. Moore, Cleveland; Dr. Claude S. Beck, Cleveland; Dr. Elmer R. Arn, Dayton; Dr. William A. Altemeier, Cincinnati; Dr. J. Huber Wagner, Pittsburgh; Dr. Vinton Siler, Cincinnati; and Dr. Carl H. Lenhart, Cleveland.

Demonstrations on Manikin To Be Made at Obstetrical Congress

One of the innovations at the Second American Congress on Obstetrics and Gynecology sponsored by The American Committee on Maternal Welfare, Inc., at St. Louis, April 6-19, will be three "Obstetric Information, Please" hours, with demonstrations of home deliveries, clinical conferences, transfusions, obstetric procedures on the manikin and opportunity for personal consultations with well-known specialists. War problems will be discussed and there will be extensive scientific and technical exhibits. In view of the expected large attendance, hotel reservations should be made in advance. The registration fee of $5 may be sent to the Headquarters Office, 650 Rush St., Chicago.

Institute on Epilepsy

The First Annual Institute on Epilepsy under the auspices of The Auracraft Shop of the Association for the Crippled and Disabled was held at the Cleveland Health Museum on Thursday afternoon, February 26. The program was diversified, including several scientific papers and an exhibit. The speakers on the scientific program were Dr. J. L. Fetterman, "Historical Survey"; Dr. A. T. Bunts, "Advances in the Surgical Treatment of Epilepsy"; and Dr. J. H. Nichols, "Advances in the Medical Treatment of Epilepsy". Miss Bell Greve, executive secretary of The Association for the Crippled and Disabled, presented "The Role of the Auracraft Shop". Discussion was opened by Dr. H. C. Schumacher. There were three exhibits of interest in the matter of epilepsy. The exhibitors were Dr. A. T. Bunts, "Roentgen Findings in Certain Cases of Epilepsy"; Dr. Harry Hauser, "Roentgen Findings in Epilepsy"; and Dr. Charles Henry, "Electroencephalographic Changes in Epilepsy".

The Auracraft project, founded some 18 months ago by a group of Cleveland physicians and Miss Greve, is concerned with providing work facilities for epileptic individuals who have been idle and unemployable.

Physicians And Industry

A series of recommendations, intended to help physicians who serve in industry, prepared by the Council on Industrial Health of the American Medical Association and approved by the Judicial Council is published on pages 895-6 of the March 14 issue of *The Journal of the A.M.A.* The outline describes the objectives of industrial health, the functions of the physician in industry and the new relationships which represent the altered professional problems encountered in medical supervision over employed groups.

Atlantic City Hotel Data

Physicians planning to attend the Ninety-Third Annual Session of the American Medical Association, June 8-12, at Atlantic City, are urged to make hotel reservations now. A list of hotels and their rates appeared on page 38 of the back advertising section of the March 7 issue of *The Journal of the A.M.A.*, and will probably appear in subsequent issues. Requests for hotel reservations should be addressed to Dr. V. Earl Johnson, chairman hotel committee, 16 Central Pier, Atlantic City.

Cleveland—Dr. Fay A. LeFevre has been appointed secretary-treasurer of the Cleveland Academy of Medicine, succeeding Dr. A. Carlton Ernstene, now on active duty as a Lieutenant-Commander in the Medical Corps of the U. S. Navy.

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*** Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154.*

Do You Know - - -

The civilian employment of the Federal Government reached an all-time high of 1,670,922 persons in December, 1941, an increase of 41 per cent over the corresponding month in the previous year.

* * *

Acting on authority granted by The Congress of the United States in a joint resolution adopted May 18, 1928, President Roosevelt has designated May 1 as Child Health Day.

* * *

As of October 31, 1941, a total of 51,911 veterans of World War I were receiving treatment in 91 Veterans' Administration hospitals. Of this total, 77 per cent were being treated for non-service disabilities.

* * *

Governor Robert O. Blood of New Hampshire is the only physician-governor in the United States at the present time.

* * *

A comprehensive analysis of the facts about the accidents in which 40,000 persons were killed and almost 1,500,000 injured in the United States in 1941, is contained in "The Wreckord", twelfth of a series of booklets issued annually by The Travelers Insurance Company. Single copies or quantities are available through the company or any of its representatives.

* * *

Dr. Bruno Gebhard, director of the Cleveland Museum of Health and Hygiene, has been invited by Dr. Angel de la Garza Brito, dean of the School of Public Health and Hygiene, Mexico, to visit Mexico City to confer with local authorities on the establishment of a health museum.

* * *

Dr. Rock Sleyster, 62, Milwaukee, President of the American Medical Association in 1939, died on March 8 of heart disease.

* * *

The Borden Vitamin Company, which has been bringing into its fold a number of research and production leaders in that field, announces that Dr. Hugh H. Darby, of the department of biochemistry of Columbia University College of Physicians and Surgeons and author of many authoritative works, has joined its staff for research and development in the production and application of vitamins and hormones.

* * *

Paul Landis, associate professor of physical education at Bowling Green State University, has been appointed to the staff of the State Department of Education, as state director of health, physical education, recreation and safety in the public schools.

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News Notes

Cambridge—Dr. A. B. Headley has been appointed health commissioner of Guernsey County, succeeding Dr. M. J. Thomas, who resigned.

Cincinnati—Staff officers of Jewish Hospital are: Dr. Walter H. Stix, president; Dr. Hiram W. Weiss, vice-president; Dr. Charles M. Siegel, secretary; Dr. Bernard A. Schwartz, chairman, and Dr. L. Howard Schriver and Dr. Stanley Simon, members of the medical board.

Cincinnati—Dr. Harry L. Claassen has been promoted to the rank of professor of dermatology and syphilology at the University of Cincinnati College of Medicine.

Cleveland—Members of the executive board of St. John's Hospital are: Dr. C. L. McDonald, chief-of-staff; Dr. C. A. O'Connel, vice-chief-of-staff; Dr. R. J. Shraff, secretary; Dr. John E. Hannibal, director of surgery; Dr. C. L. Steyer, director of medicine; Dr. J. T. Collins and Dr. J. V. Heimann.

Columbus—Dr. Jonathan Forman conducted a conference on "Urticaria", at the Southwestern Forum on Allergy, March 7, at Little Rock, Ark.

Middletown—Dr. J. A. Carter, city health commissioner, described some of the duties of his position at a meeting of the Sherman School Welfare Association.

Painesville—Dr. Benj. Spencer Park, chairman of the medical division of the civilian defense program in Lake County, told members of the Burton Chamber of Commerce of the importance of greater attention to civilian health as a part of our war effort, at a recent meeting of that organization.

Toledo—At the annual staff meeting of St. Vincent's Hospital, March 12, Dr. Harry V. Paryzek, Cleveland, President of the Ohio State Medical Association, discussed "The Medical Profession and the War", and Charles S. Nelson, Executive Secretary of the Association, spoke on "The Purposes and Functions of the Procurement and Assignment Service for Physicians". Dr. Edward J. McCormick, President-Elect of the Association, is chief-of-staff of the hospital.

Toledo—Officers of the staff of Toledo Hospital include: Dr. L. C. Grosh, Sr., president; Dr. Lewis F. Smead, vice-president, and Dr. Glenn H. Reams, secretary-treasurer.

Toledo—Staff officers of Women's and Children's Hospital include: Dr. Hoyt B. Meader, president; Dr. N. B. Muhme, vice-president; Dr. K. R. Howard, secretary, and Dr. J. H. Smith, treasurer. Other members of the executive committee are Dr. E. F. Ward, Sr., and Dr. I. R. Cohn.

Waynesfield—Dr. J. H. Heilman recently celebrated his 78th birthday. He has been in active practice here for 43 years.

CLASSIFIED ADVERTISEMENTS

Rates 50 cents per line, payable in advance. Minimum charge of $1.00 for each insertion. Price covers the cost of remailing answers. Forms close 16th of the month preceding publication.

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FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting May 4th, June 29th and September 21st. Informal course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting June 15th and October 19th. One Month Personal Course starting August 3rd. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting October 5th. Three Weeks Course starting May 25th and August 10th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting May 11th and October 19th. Informal Course every week.

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The Physician's Bookshelf

Surgical Practice of The Lahey Clinic ($10.00. *W. B. Saunders Co., Philadelphia, Pa.*), is made up of publications which have recently appeared in various journals, representing a true cross section of the work as it is now performed in this clinic. Because it represents the actual experiences and personal opinions in this group it becomes an exceedingly valuable work.

I'm Going To Be a Father! by Bob Dunn with a Little Assistance From His Wife ($1.00. *David McKay, Washington Square, Philadelphia, Pa.*), is an amusing gift book to prospective fathers consisting of a series of clever cartoons done in series.

Dark Legend, A Study in Murder, by Frederic Wertham, M.D. ($2.75. *Duell, Sloan & Pierce, New York City*), gives the reader a picture of the psychiatric process of the psychiatrist at work on a remarkable and moving human document of a young matricide.

Your Heart, A Design For Longer Living, by Joseph M. Stein, M.D. ($2.75. *Alliance Book Corp., New York City*), sets forth the simple invincible rules for healthful living and should help many a layman to perfect his own technique for postponing death.

From Cretin to Genius, by Serge Voronoff, M.D. ($2.75. *Alliance Book Corp., New York City*), presents the author's conception of the workings of mind and matter as manifested in genius and cretin. It is done in a popular style with many little known antidotes about famous characters that makes its reading a pleasure.

Sinus, by Russell Clark Groves, M.D., ($2.00. *Alfred A. Knopf, New York City*), is a popular presentation by an outstanding specialist. While the text is most excellent your reviewer doubts the educational value of the ten X-ray photographs reproduced. The book is by far the best in its field.

Clinical Immunology, Biotherapy and Chemotherapy In the Diagnosis, Prevention and Treatment of Disease, by John A. Kolmer, M.D., and Louis Tuft, M.D. ($10.00. *W. B. Saunders, Philadelphia, Pa.*), brings together between the same covers these important and closely related topics from the pen of these two outstanding authorities.

Hutchinson's Food and the Principles of Dietetics, Revised by V. H. Mottram, M.A. ($6.75. Ninth Edition, *Williams & Wilkins Co., Baltimore, Md.*), is the latest edition of this book

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The History of Medical Psychology, by Gregory Zilboorg, M.D. ($4.50. *W. W. Norton and Company, New York City).* The author presents in brilliant style a history of psychiatry. The book is unusual in that Dr. Zilboorg not only gives the historical facts but presents interpretations of the situation presented. This gives us a very interesting and fascinating presentation. The book is welcome because for the first time the subject is completely covered. It will be of interest to all physicians who are interested in the history of medicine and should be placed as a standard textbook in the library of every psychiatrist.—T. A. Ratliff.

The Year Book of Pathology and Immunology, Edited by Howard T. Karsner, M.D. and Sanford D. Hooker, M.D. ($3.00. *Year Book Publishers, Inc., Chicago),* is the second volume in this series in which all the important publications of the past year in these two basic and related sciences are brought together. Since every physician should keep up to date in these subjects as a background for his practice this is a *must* volume.

Insect Pests, by W. C. Harvey, M.D. and Harry Hill ($4.25. *Chemical Publishing Co., Inc., Brooklyn, N. Y.).* These British authorities give us the life history of the bedbug, the flea, the louse, the cockroach, the ant, the itch bite, wood lice and house fly. Practices of this infection; chemistry of insecticides and necessary attendant information of human toxicology.

The 1941 Yearbook on Industrial and Orthopedic Surgery, edited by Charles F. Painter, M.D. ($3.00. *Yearbook Publishers, Inc., Chicago, Ill.),* presents a masterful job of editing and offers the practical up-to-the-minute thought of world leaders in this ever increasing field.

The Prevention of Deformity in Childhood by Richard B. Raney, M.D., and Alfred R. Shands, Jr., M.D. ($1.00, *National Society for Crippled Children in the U.S.A., Inc., Elyria, Ohio),* is a primer emphasizing the concept of prevention in one of its most important aspects, i.e., the crippling bone, joint, or neuro-muscular affections of children.

White Eagle, Chief of the Poncas, by Charles L. Zimmerman, M. D. ($2.50, *The Telegraph Press, Harrisburg, Pennsylvania),* has been written by a physician who was the agency and school physician for the Poncas Indians and their great chief, White Eagle, for over a quarter of a century. He has gathered together all available

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data on the history of the Indian and has told the story of the Indian of today. The volume is charmingly illustrated by many photographs and drawings from many sources. Many are photographs by the author. A most pleasant, informative volume.

The Spinal Column, A Series of Sayings About Patients and For Doctors by Joseph L. Fetterman, M.D., Cleveland, Ohio, *(Second Edition, World Publishing Co., Cleveland, Ohio)*, presents series of epigrams which have appeared from time to time in the *Bulletin of the Academy of Medicine of Cleveland* and done in that same charming manner as those which have appeared in the columns of this *Journal* by the same author.

Encephalitis, by Josephine B. Neal, M.D. *(Grune & Stratton, 443 Fourth Avenue, New York City)*, provides us with a text which brings our knowledge of this disease up to date. All phases of the subject are fully covered and clearly described by a group of experts under the direction of the editor who has made a study of this disease since 1918 and has had under her direction the care of over 700 patients with this dreaded disease.

Chinese Lessons To Western Medicine, by I. Snapper ($5.50. *Inter-Science Publishers, New York City)*, is an interesting contribution to geographical medicine by the Professor of Medicine in the Peiking Union Medical College.

Medical Leaves, 1942 ($3.00. *Medical Leaves, Inc., Chicago)*, presents 223 pages of the most interesting material by 26 outstanding authors. It is the fourth volume of review of the Jewish medical world and medical history, under the editorship of Dr. Hershelmeyer.

Neural Anatomy, by Mettler (7.50. *Mosby & Co., St. Louis)*, is a textbook written to meet the needs of American students. Considerable effort has gone into the illustrations which adds much to the text.

Blood Bank and the Technique and Therapeutics of Transfusion, by Robert A. Kilduffe, M.D., and Michael Debakey, M.D. *(Mosby & Co., St. Louis, Mo.)*, brings together under one cover all the necessary information in this important field which modern warfare has made of the greatest importance, although civil use has already shown how important it is at all times.

The Hebrew Medical Journal. The Fourteenth Year, 983 Park Ave., New York, edited by Moses Einhardt, M.D.; devoted to a symposium on diabetes among Jews.

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Our Sex Life. A Guide and Counselor for Everyone, by Fritz Kahn, translated by George Rosen, M. D. ($5.75. Second Edition. *Alfred Knopf, New York City)*, still remains the best of its kind.

Methods of Treatment in Postencephalitic Parkinsonism, by Henry D. von Witbleben. ($2.75, *Grune & Stratton, New York)*. Practical chapters on diagnosis and all forms of treatment including chemotherapy, vaccine and serum therapy, fever therapy, X-ray therapy, alkaloids and physical exercise. A most complete and useful little monograph.

The Autonomic Nervous System, by James C. White, M.D., and Reginald H. Smithwick, M.D. ($6.75. Second Edition, *The MacMillan Company, New York)*, presents the latest knowledge of the structure and functions of the system, and reports the surgical method by which its disorders can be relieved. The revision has been most extensive. Will have wide appeal.

Psychiatry in Medical Education, by Franklin G. Ebaugh, M.D., and Charles A. Rymer, M.D. ($3.50. *The Commonweath Fund, New York)*, is a detailed picture of the present status of psychiatric teaching in America. From the extensive study upon which this work is based the authors offer very stimulating suggestions to guide the future development of teaching in this field.

A Unique Heritage, by Herman B. Sheffield, M.D. ($2.00. *Bloch Publishing Co., New York)*, is an idealistic novel attempting to solve the questions of racial and religious toleration.

Arms and the Girl, by Marguerite Mooers Marshall ($2.00. *Macrae-Smith Company, Philadelphia, U.S.A.)*, is a new piece of wartime fiction which introduces the obstacle that she is a commissioned officer of the nurses' corps while her peace time lover is now a private in the ranks. Good, fresh story that makes easy reading.

Diabetes Mellitus, by Zolton T. Wirtschafter, M.D., and Morton Korenberg, M.D. ($2.50. *The Williams & Wilkins Company, Baltimore, Maryland, U.S.A.)* An excellent monograph which gets away from following blind instructions and brings us up to date on the basic facts and then gives us an excellent section on the practical.

Nasal Sinuses, by O. E. Van Alyea ($6.50. *The Williams & Wilkins Company, Baltimore, Maryland, U.S.A.)*, presents the results of the author's anatomic studies and clinical observations at the University of Illinois. Material has been selected which is of most interest to rhinologists as a whole.

The Doctors Mayo, by H. C. Clapesattle ($3.75. *University of Minnesota Press, Minneapolis, Minn.)*, is the official biography of these two distinguished surgeons. It is told sympathetically by the Editor of the Press at the University who received so much from these men. Everyone interested in American Medical History must read the book and should own it.

A Woman's Health, by William C. Danforth, M.D. ($2.50. *Farrer and Rinehart, New York)*, has been written with the authority of 20 years' experience in obstetrics and diseases of women by a professor at Northwestern. It explains simply what happens during the menstrual cycle and gives to the average woman in one volume what she should know about the 30 or more active years.

Clara Barton, Daughter of Destiny, by Blanche Colton Williams ($3.50. *J. B. Lippincott, Philadelphia, Pa., U.S.A.)*, brings out of a secret closet of an old house, in true story book fashion, the priceless diaries and journals which made possible this new biography of Clara Barton. The diaries are now in the Library of Congress, and cannot be used by anyone else until 1950. Hence this undoubtedly will be the only authoritative volume on Miss Barton and on the history of the Red Cross. It will be indispensable to the medical and nursing professions as a reference book,

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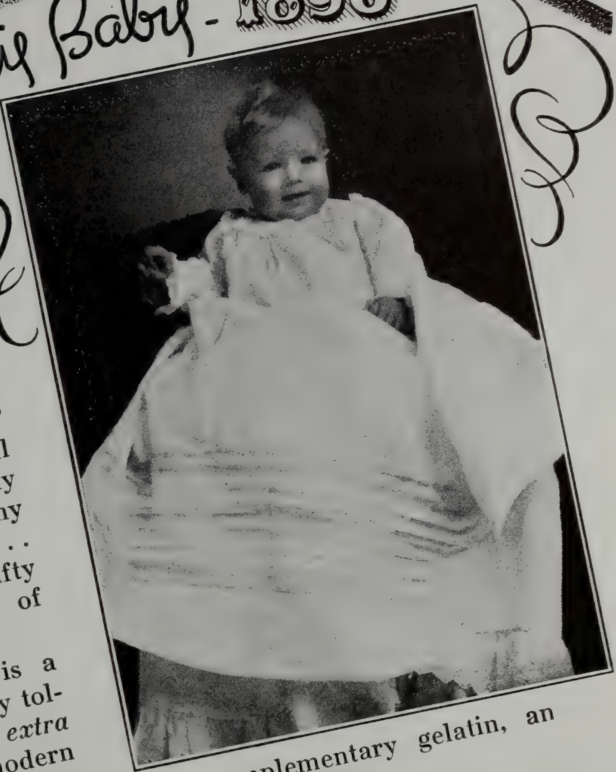

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Medical Leaves, 1942. Review of the Jewish Medical World and Medical History, Vol. IV, Herschel Meyer, M.D., editor. ($3.00. *Medical Leaves, Inc., Chicago, Ill.)*, presents a discussion by eminent authorities of many of the problems and accomplishments of Jewish physicians.

The Public Health Nurse in Action, by Marguerite Wales ($2.75. *Macmillan Co., New York City, N.Y.)*, presents the subject in a new manner. Each chapter begins with a discussion of the problem involved in one phase of public health, including advances and opportunities open to nurses. It then continues with a group of informal case histories, illustrating the general principles, the general principles to be illustrated themselves in special notes in italics and blocked into these running stories.

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JONATHAN FORMAN, M.D., *Editor*

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A Clinical Study of Hay Fever Therapy With Pollen Antigen Hydrochloride

GEORGE E. ROCKWELL, M.A., M.D., CINCINNATI, OHIO

IN a previous report we described the preparation of the hydrochloride of the pollen antigen.[1] This antigen has the following advantages: (a) it is a purified antigen; (b) it can be more accurately standardized; (c) due to its relative insolubility it is more slowly absorbed and therefore it is less likely to give general reactions, which in turn permits a more rapid increase in dosage and a higher maintenance dose; (d) because of the higher dosage, it gives greater desensitization; (e) it allows the desensitization of highly sensitive patients who are difficult to treat with the crude extract; and (f) as the hydrochloride, the pollen antigen keeps much better.

Studies on the chemical nature and the quantitative amount of pollen antigen hydrochloride in crude extracts have shown that 0.0022 micrograms of pollen antigen hydrochloride nitrogen is equivalent to 1 Noon unit and 0.0033 micrograms nitrogen is equivalent to one protein nitrogen unit.[2] Therefore the unit (0.0064 micrograms nitrogen) which we used in our earlier work and in this report is approximately equivalent to 3 Noon units.

ABSORPTION

Pollen antigen hydrochloride is more slowly absorbed than the crude extract, as is evident by these facts: (a) It is a more certain sensitizer of guinea pigs than the crude extract. The results of one such experiment are shown in Table 1. (b) The reactions from over-dosage with pollen antigen hydrochloride usually did not appear for two to eight hours.

The Author

● Dr. Rockwell, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1923; member American Bacteriological Society, fellow Association for Advancement of Science, Ohio Regional Allergic Society; attending physician, medical staff, Bethesda Hospital, Cincinnati.

CLINCIAL RESULTS

We have treated patients for several years with pollen antigen hydrochloride. At this time we will report only our clinical results obtained for the pollen season of the year 1941. A total of 70 cases were treated: 62 were the Fall type and were ragweed sensitive, and eight were of the Spring type and were sensitive to the various grasses. Of the Fall type cases 50 were treated preseasonally, four perennially, and eight co-seasonally. All the Spring type cases were treated preseasonally. The results are shown in Table 2. The eight co-seasonal cases are not included in the table due to the difficulty of evaluating their results. It will be noted from this table that the results were unusually good.

DOSAGE

The build up doses were on the average, those given in our previous article.[1] The maintenance

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Submitted February 24, 1942.

dose in the ragweed sensitive cases which were treated preseasonally or perennially varied from less than 12,000 units to 30,000 units with an average of 12,000 units (36,000 equivalent Noon units). The average number of doses, including build up doses and maintenance doses was less than one-half the number of doses required by patients treated with the crude extract. This was true in spite of the fact that practically all of the cases were carried to a much higher maintenance dose. Those cases which were carried to a maintenance dose of 21,000 or more of our units showed a very marked decrease or entire absence of skin reaction to pollen antigen hydrochloride at the end of the season as compared to their skin reaction before treatment. The eight cases which were sensitive to the various grass pollens were given pollen antigen hydrochloride made from an equal mixture of the five common grasses of this locality. Their average maintenance dose was 7,500 of our units which was probably much higher than would have been necessary.

TABLE 1

Showing anaphylactic reaction of pigs sensitized with two subcutaneous injections, separated by two days, of 60,000 units of ragweed pollen antigen hydrochloride. Shocking dose given intracardially two weeks later.

Pig	Shocked With	Results
1	0.225 mg. pollen antigen hydrochloride dissolved in 3 cc. alkaline saline	Acute shock with death in 5 minutes. Autopsy showed lungs expanded
2	4 cc. 10 per cent crude extract	Acute shock with death in 6 minutes. Autopsy showed lungs expanded
3	0.112 mg. pollen antigen hydrochloride dissolved in 1.5 cc. alkaline saline	Pig showed intense itching of nose and feet; some respiratory trouble. Survived
4	1.5 cc. 10 per cent crude extract	Pig had itching of nose; was restless but survived
5	0.225 mg. pollen antigen hydrochloride dissolved in 3 cc. alkaline saline (Normal pig control)	No reaction

TABLE 2

Showing clinical results of hay fever patients treated with pollen antigen hydrochloride for the year 1941.

			RESULTS		
No. Cases	Type of hay fever	Method of treatment	Excellent	Satisfactory	Unsatisfactory
50	Ragweed	Preseasonal	18	30	2
4	Ragweed	Perennial	2	1	1
8	Grass	Preseasonal	6	2	0

Excellent..............................90% or more relief
Satisfactory...........................75 to 90% relief
Unsatisfactory.........................Less than 75% relief

SUPPORTIVE TREATMENT

All cases were tested for sensitivity to foods, emanations, and molds. Where indicated they were also desensitized with mold extract. During the hay fever season they were placed upon appropriate diets and instructed to avoid contact with any substances to which they were sensitive, such as feathers, carnauba wax, face powders, or animals.

REACTIONS

The following reactions were encountered: hives once, asthma once, very mild asthma once, an occasional sore arm, itching of the palms of the hands or the soles of the feet or both, 19 times, itching of the nose with some sneezing, 14 times, and nausea and headaches twice. Among these reactions there was only one which was of a severe nature and it was asthmatic in character and probably was due to accidental vascular injection. Our reactions were definitely fewer in number and much less severe than we encountered among those receiving the conventional extract. This was true in spite of the fact that the build up doses were much more rapid and the maintenance dose much higher than that used in the cases treated with the crude extract.

SUMMARY

Unusually good clinical results were obtained in a group of ragweed and grass sensitive hay fever cases which were treated with pollen antigen hydrochloride. The significant fact is that the maintenance dose was much larger even though the total number of injections given was less than half the number required in a similar group treated with the crude extract.

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1. Rockwell, G. E.: Preparation of a Slowly Absorbed Pollen Antigen, Ohio State Med. J. 37:651, July, 1941.
2. Rockwell, G. E.: A Study of the Chemical Nature of Pollen Antigen, Journal of Immunology, in publication.

Evolution of Diagnosis and Treatment of Cardiovascular Diseases

In the entire history of medicine the outstanding contribution to the treatment of cardiovascular diseases was the discovery of the effect of infectious diseases that so commonly are contracted by children. When this discovery was made it had to be sold to the general medical profession and in turn sold by them to a surprised and doubting public. Parents rebelled at a program of bed rest. The seeming absurdity (to them) of keeping a child in bed for three or four months and restricting its physical activities for three or four years, aroused their antagonism and temporarily injured the standing of the physician who advised a program of that kind. A large part of the public remains unconvinced and the future health of the rheumatic child is not properly safeguarded.—Emmet Keating, M.D., Chicago; The Ill. Med. Jour., Vol. 81, No. 3, March, 1942.

As a tool of psychotherapy, listening may prove more effective than lecturing.—Fetterman.

A Study of Epilepsy in the Detroit Schools

O. P. KIMBALL, M.D., CLEVELAND, OHIO

A SCHOOL clinic was organized in Detroit for the study of epilepsy in June, 1934. At that time the Department of Health and the schools had the names and addresses of more than 400 children who were having seizures. Many of these had been excluded from school because of repeated attacks, and where practicable, were on home teaching. In this school clinic more than 1,000 children who were referred because of seizures of some nature have been studied. The social and medical study of these children form the basis of this paper.

In January, 1935, a school was opened in which 50 children were kept from Monday morning until Friday evening for the purpose of 24 hour observation, repeated study, treatment and schooling. In this school clinic a medical study can mean only a clinical and physical examination and repeated discussions with the parent. Where the history and physical findings suggest a localized injury or tumor, encephalography is advised and in many cases arrangement for this study is made through the school clinic at one of the hospitals. If a complete study has been made in a hospital, we get the findings and diagnosis as soon as possible. If a blood Wassermann has not been made, it is taken in our clinic and made by the Health Department Laboratories. A psychological study is made by the psychological clinic before a child is entered in this school. If the intelligence is too low for teaching, the child is not entered in the school but may be treated through the clinic. A social and family history is made by a health nurse who is specially trained for this work. This history is again taken up by the physician and corrected or enlarged as is possible. If there is hesitancy or a lack of information, this part of the examination is repeated at subsequent visits. It is not unusual for us to be making additions to the history for as long as six months. Frequently, the most important information is obtained from older relatives living in Europe or in a distant state.

The terms (1) hereditary epilepsy, (2) epilepsy with hereditary factors unknown, and (3) idiopathic epilepsy have had a definite meaning all through this study. When the term "hereditary epilepsy" is used it means that there is a known history of epilepsy, i.e., a chromosomic linkage to other known cases of epilepsy. The term "epilepsy with hereditary factors unknown" means only what is implied. There is no record of accident or infection and no known cause for the condition can be found in the personal history; and in addition, the family history is only partly known, or as in 193 cases, definitely unknown. The term "idopathic epilepsy" is exactly the same as (2) except here the family history is known and there is no linkage to epilepsy in at least four or five generations. The above terms were used only for classification and statistics, and never in discussions with parents. The same physician has made the final diagnosis and classification throughout the entire study.

The Author

● **Dr. Kimball, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1918; Fellow, American College of Physicians; member visiting staff, University Hospitals and St. Luke's Hospital, Cleveland.**

In the 1,250 cases studied, the history was definitely known in 578 or 46.3 per cent; partially known in 479 or 38.3 per cent; not known in 193 or 15.4 per cent. The following statistical tables are based upon these findings in the 1,250 cases.

Statistics Based on 1250 Cases of Epilepsy

Analysis of Cases Based on

I. Sex

	Number	Per Cent
Male	734	58.7
Female	516	41.3

II. Nationality

Epilepsy is fairly evenly distributed among nationalities. In the Detroit School for Epilepsy the distribution by per cent is as follows:

	Per Cent
American (White)	59.0
American (Colored)	15.8
Foreign Born or of Foreign Parentage	25.2

III. Types of Attacks

	Number	Per Cent
Grand Mal or Grand Mal and Petit Mal	794	63.5
Petit Mal only	328	26.3
Atypical Forms	128	10.2

Submitted March 10, 1942.

IV. Time of Onset

	Number	Per Cent
Birth to 1 year	200	16.0
1 to 5 years	403	32.3
5 to 10 years	308	24.6
10 to 15 and up	295	23.6
Onset indefinite	44	3.5

V. Hereditary Factors in the 578 Cases Where History is Known

Abnormalities	Number	Per Cent
Epilepsy alone	209	36.1
Epilepsy and Migraine	86	14.8
Epilepsy, Migraine and Insanity	34	5.9
Epilepsy and Insanity	34	5.9
Epilepsy and Chorea	10	1.7
Epilepsy, Migraine and Chorea	3	.5
Migraine	36	6.2
Migraine and Insanity	23	4.0
Migraine and Chorea	4	.7
Migraine, Insanity and Chorea	4	.7
Insanity	33	5.7
Insanity and Chorea	3	.5
None of these Factors	99	17.3

Summarizing Chart V: In 578 cases with known history, epilepsy occurs in the direct lineage in 375 cases or 64.9 per cent; migraine in 190 cases or 32.8 per cent; insanity and chorea in 155 cases or 26.9 per cent; none of these factors occur in 99 cases or 17.3 per cent.

VI. Actual Diagnosis in the 578 Cases of Chart V is as follows:

Diagnosis	Number	Per Cent
Hereditary Epilepsy	375	64.9
Idiopathic Epilepsy	130	22.5
Brain Injury	69	12.0
Chorea	2	.3
No Diagnosis	2	.3

Chart VI shows that 375 of the group of 578 cases have a history of epilepsy in their family. In Chart VII (shown below) there were 679 epileptics in the lineage of these 375 children or, on an average, epilepsy occurred more than once in the history of each child with the diagnosis of hereditary epilepsy. The distribution of these are 242 or 35.7 per cent on the father's side and 437 or 64.3 per cent on the mother's side of the family. The frequency and distribution of migraine, insanity and chorea are also shown. In migraine 31.3 per cent of the cases are on the father's side and 67.7 per cent of the cases on the mother's side. Considering these four diseases together, epilepsy, migraine, insanity and chorea we find them distributed as follows: 37.5 per cent of the cases on the father's side of the family and 62.5 per cent on the mother's side.

VIII. The Diagnosis in 1250 Cases is as follows:

Diagnosis	Number	Per Cent
Hereditary Epilepsy	439	35.1
Epilepsy—Heredity Unknown	499	39.9
Brain Injury or Defect	152	12.2
Idiopathic Epilepsy	108	8.6
Chorea	3	.2
Questionable Diagnosis	49	4.0

If we may assume that the hereditary factors are the same in those cases where the history is unknown as in the 578 cases with known history (See Chart VI) then the diagnosis of the 1250 cases would be as follows:

IX.

Diagnosis	Number	Per Cent
Hereditary Epilepsy	811	64.9
Brain Defect or Injury	149	11.9
Idiopathic Epilepsy	282	22.6
Chorea	3	.2
Not stated	5	.4

From this study it must be deduced that there is an inherited constitutional predisposition to epilepsy and this view is held today by most investigators. Rice states that "the basis for true epilepsy is inherited exactly as is feeble-mindedness—as a recessive trait". He gives the percentage of inherited feeble-mindedness as

	First			Second			Third			Fourth			Fifth			Total			Per Cent	
Generation	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M
Epilepsy	44	94	138	148	233	381	41	93	134	7	17	24	2	0	2	242	437	679	35.7	64.3
Migraine	1	2	3	50	127	177	16	18	34	0	0	0	0	0	0	67	147	214	31.3	68.7
Insanity Chorea	27	7	34	80	117	197	24	37	61	11	6	17	1	2	3	142	169	312	45.9	54.1
Total	72	103	175	278	477	755	81	148	229	18	23	41	3	2	5	452	753	1205	37.5	62.5

VII. Distribution of Epilepsy, Migraine, Insanity and Chorea According to Generation in Which They Occur in the 578 Cases with Known Heredity.

from 65 to 80 per cent of all cases. Goddard gives 65 per cent of all feeble-mindedness as inherited. Kimball and Marinus found 76 per cent of the feeble-mindedness in children in the Detroit schools to be inherited. Dejerine reported neuropathic tendencies in 66.8 per cent of his cases of epilepsy. The marked increase in the number of potential factors of inheritence found in studies of schools and institutions contrasted to hospital studies is due entirely to repeated examinations and insistence upon the parents learning the whole truth about these diseases among their ascendants. As stated above, many of our important histories were completed only after receiving information from an older relative in Europe or from distant state in this country.

From reliable hospital statistics, neuropathic heredity was found by Gowers in 40 per cent of his cases; by Kraepelin in 45.7 per cent; by Brain in 28 per cent; by Turner in 51 per cent; by Oppenheim in 50 per cent. In the report on epilepsy from the Northwestern Medical School, Paskind and Brown (1936) conclude that "heredetary factors play an important role in the history of epilepsy". They found a familial neuropathic trend in 50 per cent of their cases. Lennox and Cobb found seizures to be ten times as frequent in the immediate relatives of epileptics as among the control group and migraine three times as frequent. Lennox et al. in a study of epileptics by means of the electroencephalograph found in 28 per cent both parents and in 94 per cent one parent showed some dysrhythmia. They also report abnormal records in 54 per cent of the relatives of the epileptics and in only 6 per cent of the controls. They conclude: "We believe this evidence indicates that the dysrhythmia of epilepsy is inheritable and such a dysrhythmia when demonstrable may represent a predisposition to epilepsy or some allied disorder".

Twins present good material for the investigation of hereditary factors. The study by Rosanoff et al. shows that if epilepsy were present at all, it was present in both in 52.2 per cent of identical twins, and in only 10 per cent of fraternal twins. The percentage with siblings of epileptics was from 1.1 to 4.1 per cent. Conrad, in the study of 253 pairs of identical twins, found epilepsy when present at all, was present in 66.8 per cent and among fraternal twins the percentage was 3.1 per cent. These authors conclude that the high percentage of epilepsy in monozygotic twins and the lower incidence among dizygotic twins is definite evidence of an hereditary factor in epilepsy.

Our figures on the incidence of epilepsy among 1250 school-age children compare well with those of other studies made among school children or among children in institutions.

X. Medical Study (Previous to our study in the school clinic).

	Number	Per Cent
Hospital Medical Study	563	45.1
No Hospital Study	687	54.9

Chart X shows that less than half of these children have had a diagnostic study. Of the 563 who have had a careful study, 402 have had repeated studies, and frequently as many as three different hospital studies. This represents considerable waste of time and effort for there is usually a duplication of work at the expense of the city and state, and with it all these harassed parents have practically no knowledge of the condition found. The hesitancy with which they accept a diagnosis of epilepsy is thoroughly understood, and because of this unwillingness to accept the diagnosis of "epilepsy", the physician in charge must have time and patience to give them an understanding of this disease and their responsibility in the care of the child.

XI. Results of Psychological Tests in 462 Cases.

Intelligence Quotient	Number	Per Cent
Over 100	38	8.2
89-100	65	14.1
79-90	104	22.5
49-80	220	47.6
Under 49	35	7.6

Epilepsy per se does not necessarily mean a lowered intelligence, but it is obvious from our studies that the majority of cases are somewhat below the average. Three-fourths of our cases show an intelligence quotient below 90; more than half are below 80.

The purpose of this school clinic from its inception was a practical social study as well as a medical study of epilepsy. The first thing is to get the child in school, if practical, and thereby relieve the home situation. The investigation of the hereditary factors was completed only after several visits; because of importance placed on the child's schooling and the controlling of the seizures, the complete cooperation of parents is assured. The Special School, with 24-hour observation, soon demonstrated its usefulness and showed even more than we had anticipated the great need for such a school for children with epilepsy. Because of the success of this school, the committee on education of the Michigan State Legislature in 1935 classified children with epilepsy as "handicapped" and extended state aid for their education. In 1937 money was appropriated for a school at the state institution for epilepsy at Caro, Michigan.

The most discouraging observation of the social study is the attitude of hopelessness toward these children by school authorities, state administrators, and, all too frequently, the medical profession. Our state institutions have always been overcrowded and due to the nature of the conditions they have had only the very worst cases. Therefore, their progress has been none too promising. The school authorities of many cities adopt the attitude that epilepsy is a medical problem and therefore they will assume no responsibility for the education of these children. We have special schools for the hard of hearing, those with poor vision, the crippled and the cardiacs. We should have a special school for children with a handicap arising from an unstable nervous system, including seizures. These children need special care and training with an understanding of their handicap and how they can best adjust to society. This special school will permit of a correlated study and a better disposition of the problem.

Our experience and observation only emphasizes what has been known and taught for years; namely, that by far the majority of cases of epilepsy should never attempt to live and work in large industrial centers. The very nature of the disease precludes this. This teaching, with practical suggestions for special training, has been given to both students and parents. In 1937 this school attempted to correlate this teaching by placing selected pupils in positions where they would get this vocational training. The Adjustor of Special Aid for Handicapped Workers had an office in the Department of Special Education and was personally acquainted with and thoroughly approved the idea. Two young men, whom we selected, applied for assistance to the State Agricultural Program so that they might become efficient gardeners. Another patient, a young woman with a commercial education, applied for secretarial work to the Federal Works Program. The Special Adjustor as well as our school authorities were disappointed when the state and federal authorities refused to consider anyone with a diagnosis of epilepsy.

As far as this school can ascertain, this same feeling toward epilepsy prevails in every industrial organization except the Ford Motor Company. This company does not reject workers because of this handicap. Some of our most capable young men went to the Ford Company, explained their condition, and were immediately placed on the waiting list for a suitable and safe position. Three of these young men have been working steadily for the past four years and have lost very little time because of this illness. During this time they have reported regularly to the school clinic for observation and advice. From a medical point of view, nothing has done more for their disease than the improved morale and the increased stability and happiness from their work.

In this school clinic there are a number of children who have had a brain operation in an effort to cure their seizures. In 16 of these cases there is a definite family history of epilepsy and in not one of this group of hereditary epilepsy was there any improvement from the operation.

For a graphic picture of hereditary epilepsy of the family of J. J. one of our children, is given.

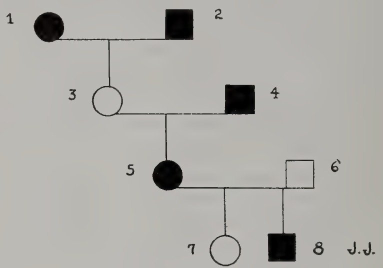

Fig. 1

(Fig. 1). The information for the above graph was given by the mother (No. 5). She was of average intelligence and no evidence of degeneration was noted. She knew her grandparents (Nos. 1, 2) very well. She states that they were both epileptics and there were cases of epilepsy among the ascendants of each for generations. Also her grandmother (No. 1) had severe migraine and this was characteristic of her ascendants. Her mother (No. 3) was an only child and was not an epileptic but did have severe migraine. Her father (No. 4) was an epileptic and stated that there were several known epileptics in his lineage. The mother (No. 5) an only child, had nocturnal seizures from childhood and migraine since she could remember. The father (No. 6) was not an epileptic and no history of epilepsy was found in his lineage. The sister (No. 7), younger than the patient, had not had seizures.

This boy J. J. was operated twice. Since the second operation there has been such mental deterioration that the boy can no longer be in school. There is no criticism implied against brain surgery in certain cases but we could not advise surgery where the history and clinical findings point to hereditary epilepsy.

In this school clinic the medical study has been augmented during the past years by electroencephalography. We are now ready to use this diagnostic measure in all cases of atypical epilepsy and in many cases which have previously been diagnosed as behavior problems. The treatment of epilepsy with Dilantin since January, 1938, has practically revolutionized our school work. Not only the control of seizures in more than half of the cases but the change in personality and mentality has been most striking. This treatment of epilepsy with Dilantin has been reported in detail and will not be repeated here.

The school for epileptics is a most valuable institution in which to make a practical social study. The parents are taught how to care for their epileptic child. This school has done much to bring sanity and understanding to these homes. They have been told in simple terms about epilepsy. They understand what we are trying to do, and in most cases, assume their responsibilities willingly. The understanding, appreciation and cooperation of the parents have been most gratifying.

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Poisoning in Childhood

The general methods of treatment include several distinct phases, the relative importance of which is determined in part by the type of poison, and in part by the time element. It is perfectly evident that we wish to get rid of the poison, and that for that purpose lavage is the primary method of choice under hospital methods. If a child has swallowed coated pills, it may be possible to recover them even a number of hours after their ingestion. If, however, the fact of the ingestion of poison was not known, and a readily absorbable poison was taken many hours before the condition was recognized, lavage obviously becomes of less benefit. It is, however, the number-one general method of therapy in poisoning, and we cannot stress too strongly the importance of employing it even many hours after one might theoretically expect it to be of little value. It follows, of course, that one needs to make every possible effort to identify the specific toxic agent, because, with very few exceptions, the lavage procedure would then be carried out with a solution capable of neutralizing, or absorbing or otherwise inactivating the poison.

Contraindications to lavage are (1) convulsions as in strychnine, and (2) a badly-damaged esophagus such as may result from lye. It is not to be understood by this that the use of a levine tube is forbidden in each and every instance where these substances are believed to have been taken.

After lavage has been repeated, and thorough cleansing out of the stomach completed, catharsis is usually desirable to hasten the elimination of the portion of the poisonous material that has passed beyond the stomach. Here again knowledge of the type of poison will result in a choice, because oil and oily cathartics enhance the action of naphthalene and camphor, and the use of magnesium sulphate will be generally preferred, except after kerosene.

Another general method of treatment is the administration of oxygen, which is useful not only for instances of suffocation and poisoning by gases, but in various methemoglobin states in which oxygen transportation is impaired, and as an adjunct to stimulants in various depressed states following sedatives.

Stimulants have a two-fold rôle, operating not only as specific physiological antidotes to depressants and overdoses of sedatives, but also as part of "general supportive treatment" in many states approaching shock, induced by the physical trauma incident to ingestion of corrosive poisons.

Other components of shock treatment may be employed, including external heat, medication to relieve pain, and occasionally Trendelenberg position.—Rea F. Chittenden, M.D., North Hollywood, and Russell Mapes, M.D., Beverly Hills; Cal. and Western Med., Vol. 56, No. 3, March, 1942.

Early Toxemias of Pregnancy

In the management of the early toxemia of pregnancy the emphasis cannot be placed too strongly on frequent and careful prenatal examinations. Properly regulated diet of one quart milk, one serving meat, plenty fruits and vegetables with some added vitamins will keep many patients below the toxic threshold. Nervousness, neuritis and generalized feeling of discomfort are the first signs of warning. Excess weight gain, albuminuria and edema are late signs. These nervous system symptoms are very cuscessfully controlled and the patient reports a feeling of well-being by taking bromides in the form of the potassium salt or the five bromide combination. A toxic patient up to this early stage begins improving if nervousness is controlled.—Samuel T. Thierstein, M.D., Lindsborg, Kansas; Jour. Kansas M.S., Vol. XLIII, No. 2, February, 1942.

Further Clinical Experience in the Treatment of Arthritis with Vitamin D.

IRVING E. STECK, M.D.

IN 1935 Dryer and Reed[1] published a brief preliminary report on the use of concentrated vitamin D in the treatment of arthritis. Since that time a number of other publications on this subject have appeared. The literature has been reviewed by Abrams and Bauer,[2] by Reed, Struck and Steck,[3] and by Snyder.[4] It is the purpose of this paper to report on the clinical experience with 98 cases of arthritis treated with vitamin D.

In making this report there is no intention of advocating vitamin D in any form as a single therapeutic agent for arthritis. The primary interest is in pointing out the effects of this agent in a series of patients observed over a period of years, who received no other concurrent medication.

The first problem in evaluating a therapeutic measure is the selection of criteria upon which to base a decision as to how much actual benefit has resulted. This is particularly difficult when dealing with arthritis. Because of the multiplicity of variable factors occurring in nearly every case of arthritis it appeared to be undesirable to depend on the simple statistical comparison of a control group with a treated group. This might be valid if one could observe a thousand unselected cases in each group, with environmental conditions and other factors well controlled.

Since this is impossible in an out-patient clinic of limited capacity, it appeared more reasonable to make each case its own control by alternating periods of treatment with periods of therapeutic rest, either with no treatment or with a placebo substituted. This has been done in practically every case reported upon in any publication from this Clinic.

In Table 1 is shown the distribution of these cases according to the diagnosis by type.

Table 1

Distribution by type	
Atrophic	84
Hypertrophic	9
Mixed	5
	98

There were 22 males and 76 females in the series. The distribution by age when first seen is given in Table 2.

The Author

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Table 2

Age	Distribution No.
19-24	7
25-29	9
30-34	16
35-39	9
40-44	18
45-49	9
50-54	9
55-59	10
60-64	6
65-67	4
70	1
	98

Age reporting is probably only approximately correct, in view of the disproportion shown in the first pentade of each of the decades 30-39 and 40-49. However, the larger numbers do fall within these two decades.

In Table 3 is shown the distribution according to the approximate duration of the condition when the patient was first examined. In some instances the exact date on which symptoms were first noted was given. But in the majority the approximation falls only within a six-month period.

Table 3

Distribution by Duration of Disability

Years	No.
Less than 1	4
1	15
2	14
3	11
4	13
5	13
6	2
7	6
8	5
9	2
10	1
11	0
12	1
13	2
14	2
15	4
16	0
17	0
18	0
19	1
20	2
	98

From this table it appears that 28, or 28.5 per cent of all cases had experienced some disability for six years or longer while 70, or 71.5 per cent were first examined at the Clinic within six years of onset.

From the departments of physiology and medicine, University of Illinois, College of Medicine, and the Arthritis Clinic Research and Educational Hospitals.

A part of the expense of this investigation was paid by a grant from Nutrition Research Laboratories.

The evaluation of the degree of disability when first examined is, of course, rather arbitrary. Therefore, Table 4 is presented with some misgivings as many cases are necessarily border line and might as readily be placed in one group or another. Nevertheless, the analysis is presented for what it is worth.

Table 4

Distribution According to Degree of Disability

Disability	No.
Slight	13
Moderate	19
Marked	45
Complete	21
	98

There were 66 cases, or 67.3 per cent falling in the more severe groups which probably means that they did not come to the Clinic until the condition had progressed to an advanced degree that compelled attention.

In evaluating the end result of treatment, Reed, Struck and Steck[3] adopted a classification as follows:

1x	Inconclusive.
2x	General condition, appetite, muscular strength and peripheral vasomotor disturbances improved some.
3x	Decreased joint swelling; less pain.
4x	Joint swelling decreased markedly, increased mobility, markedly decreased pain.
5x	No exacerbation after six months to one year without treatment.

This same classification is employed in Table 5. It is admitted again that such an evaluation is somewhat arbitrary but it seems to offer some advantage for presenting a condensed picture of results in a large group of cases.

Table 5

Degree of Improvement	No.
2 X	8
3 X	42
4 X	34
5 X	14
	98

The proportion of cases able to discontinue treatment indefinitely is about the same as reported in the earlier work. As treatment progresses it may be expected that some cases will be promoted from one group to another.

We are aware of the undesirability of too mathematical presentation of results in any condition as complex as arthritis. In fact, it is emphasized that this presentation does not tell the whole story, for there is evidence that treatment may arrest the advance of the disability without actual improvement.

The question naturally arises as to whether the degree of improvement noted in Table 5 bore any relation to either the ages of the patients or to the duration of the condition before treatment with vitamin D was instituted.

The distribution by duration and degree of improvement is shown in Table 6.

Table 6

Duration	2 X	3 X	4 X	5 X	Total
1 year	..	..	3	1	4
1	..	4	5	3	12
2	1	8	3	2	14
3	1	7	..	1	9
4	1	6	5	2	14
5	..	5	6	1	12
6	..	1	3	1	5
7	..	4	..	1	5
8	3	..	3	1	7
9	..	..	1	..	1
10	1	1	1	..	3
12	..	1	..	..	1
14	..	2	1	1	4
15	1	..	1	..	2
16	..	1	1	..	2
19	..	..	1	..	1
20	..	1	..	..	1
28	..	1	..	..	1
	8	42	34	14	98

It cannot be said that there is any marked correlation between the degree of improvement attained under this treatment and the duration of the disability before treatment.

In Table 7 is shown the distribution by degree of improvement and the age of the patient when first seen.

Beyond the information as to just where each case falls in the distribution there is little to be gotten from this table. In proportion to the number of cases in each duration period the numbers falling in the last three columns are comparable.

Table 7

Age	2 X	3 X	4 X	5 X	Total
19	..	..	1	..	1
20	..	2	..	..	2
21	..	..	2	..	2
22	..	..	..	1	1
24	1	..	..	..	1
26	..	1	..	..	1
27	..	1	..	..	1
28	..	1	2	..	3
29	..	3	..	1	4
30	..	2	..	1	3
31	..	..	1	..	1
32	..	..	3	..	3
33	..	2	2	..	4
34	..	4	1	1	6
35	..	1	1	..	2
37	..	..	1	..	1
38	1	1	2	1	5
39	..	1	..	..	1
40	..	1	..	..	1
41	..	1	1	..	2
42	..	5	..	1	6
43	..	2	2	1	4
44	1	1	1	1	4
45	1	..	..	..	1
46	..	1	2	1	4
47	..	1	..	..	1
48	..	1	..	..	1
49	..	..	2	..	2
51	..	3	..	..	3
52	1	..	1	1	3
53	..	1	1	1	3
54	1	..	..	..	1
55	1	1	1	..	3
56	..	..	1	..	1
57	1	1	..	..	2
58	..	1	1	1	3
59	..	1	..	..	1
60	..	1	..	..	1
62	..	..	1	1	2
63	..	..	1	..	1
64	..	..	1	..	1
65	..	..	1	..	1
66	..	..	..	1	1
67	..	1	1	..	2
70	..	..	..	1	1
	8	42	34	14	98

Next, an effort was made to determine whether there was any correlation between the age at onset and the duration of disability at the time first seen. Of course, the latter is not a true statistical function since it is not self-limiting. The table constructed was too large to be included in this manuscript, especially since it showed only the scattered distribution. There were six cases with an age of onset at 40 years which was the largest number in any one age bracket. From the cases with a duration greater than 10 years Table 8 was constructed. There appears to be a roughly inverse relation between the age of onset and the duration. This, however, may be an artificial function rather than a true function. A large number of cases with more even initial distribution might be informative.

Table 8

No.	Age at Onset in Years	Duration in Years
1	12	28
1	13	19
1	22	20
1	24	14
1	28	16
1	30	12
1	32	14
1	34	14
1	38	15
1	42	15
1	42	16
1	45	10
1	45	14
1	53	10
1	57	10
15		

The dosages in terms of vitamin D units were of the order previously reported. All patients received a form of ergosterol activated by an electrical process and put up in capsules containing 50,000 units each* for periods of one to five years.

The question which naturally arises and which is most frequently asked is, "How does Vitamin D produce benefit to an arthritic patient?" The failure to answer this question has, curiously, been invoked as an objection to the use of vitamin D in concentrated form for any purpose. However, it may be pointed out that if this objection were applied consistently, very few drugs could be made available. In the therapy of arthritis alone one may mention the numerous reports of the beneficial effects of such widely different agencies as pregnancy and jaundice. Assuming that the observations are valid, it still must be admitted that there is no rational explanation of such effects at the present time. The same may be said of almost every form of medication for which any success has been claimed in the treatment of arthritis.

There have been many investigations into the nature of the physiological action of vitamin D in the body. A survey of the literature[3] reveals that no satisfactory explanation has been formulated. More recently Harrison and Harrison[5] have suggested that vitamin D facilitates resorption of phosphorus in the kidney, thus conserving the supply. Granting this point for the moment, it still leaves unanswered the question as to the nature of the action of the vitamin on the kidneys.

Furthermore, it leaves out of consideration entirely the evidence advanced to show the involvement of the liver in the functioning of vitamin D, as well as that indicating the participation of the vitamin in tissue metabolism. At present it appears that all of the explanations of the physiological action of vitamin D must be considered as too superficial. Without questioning the validity of the observations made in connection with the numerous theories that have been offered it must be admitted that the fundamental nature of its action is still unexplained and that much more work must be done in order to understand its physiological influence both in the antirachitic dose and in the massive dosage that has been employed in tetany, arthritis and allergic conditions.

However, it would appear that the fundamental point of attack is in relation to the metabolism of peripheral tissues. The net result would then depend on its interaction with factors peculiar to each tissue. Even the well-known effects on blood composition in a fasting subject cannot be explained except by reference to the effects on both the skeleton and the soft tissues, where local factors, at present unknown, probably condition the response qualitatively.

Vrtiak and Lang[6] and Abrams and Bauer[2] have stressed the toxic reactions of patients treated for arthritis with various forms of vitamin D. This high incidence of toxicity has never been found in this institution among more than 1000 human subjects that have been treated for various conditions. Since there are many factors influencing the threshold of toxicity, it is, of course, possible that unfavorable reactions may occur with relatively low dosage but it appears to be a peculiar coincidence that such high toxicity rates should appear in certain series and not in others. It must be concluded, therefore, that these two groups of observations are not representative in this respect and must have resulted, either from failure to control some factor, or from too much stress, in verbal instructions to patients, on the possibility of toxication.

Gordon and Sevringhaus[7] have listed 12 known factors that may condition the occurrence of toxicity. These are: (1) the dose per unit of body weight; (2) the duration of administration; (3) the composition of the diet in both minerals and organic matter; (4) the state of the alimentary tract; (5) individual susceptibility; (6) age; (7) pre-existing pathology; (8) the vehicle in which the vitamin is administered; (9) the route of administration; (10) the functional state of the endocrine system; (11) the purity of the vitamin preparation; (12) the source of the vitamin. They also suggest other unknown factors.

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*Supplied by Nutrition Research Laboratories.

To these one might add (a) psychic suggestion induced by repeated reference to toxicity, and failure to differentiate this from true vitamin D toxication and (b) confusion of this condition with hypercalcemia and hypervitaminosis D.

Finally, it must be admitted that in view of the extensive use of vitamin D in the general population, a surprisingly small incidence of unquestionable vitamin D toxicity has been reported. There was no toxicity at any time among the 98 patients included in this report.

SUMMARY AND CONCLUSIONS

1. The result of treatment of 98 cases of arthritis with vitamin D is reported and a detailed analysis of the data is given.

2. Intoxication with vitamin D was not found in any case.

3. The therapeutic results are closely comparable with those previously reported from the same Clinic.

4. There is still no adequate explanation of the beneficial results of this method of treating arthritis.

5. There is no claim that vitamin D is a specific cure for arthritis. Complete freedom from any recurrence of symptoms on cessation of treatment for long periods was found only in a small percentage of cases studied over a period of five years.

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The etiology of psychosomatic disorders, including many cases of pylorospasm, gastric and duodenal ulceration, spastic constipation, and colitis, may be closely related to the general problem of tension resulting from personality maladjustment. Undoubtedly the pain threshold in these cases is lowered, and in addition, there is an imperfect balance of the vegetative nervous system.—Clarke H. Barnacle, M.D., Denver; Rocky Mountain Med. Jour., Vol. 39, No. 3, March, 1942.

Management of Some of the Problems of Later Life

The most distressing developments of old age are the mental symptoms. In the past this branch of medicine has been very much neglected because of the belief that arteriosclerosis or senile atrophy was the sole and only cause of these symptoms. In recent years study and observation have shown that we must take into consideration other possible factors, such as toxic conditions due to an excessive use of sedative medication, operations, trauma, infections, emotional disturbances, etc.

Clow analyzed 100 cases of psychosis accompanying cerebral arteriosclerosis in persons over 60 years of age. It was pointed out that the past history seemed to be important in that 61 of the patients were, in adult years, more than ordinarily tense. Fifty of them were described as having an unusually narrow range of interest. A large proportion of them made notably poor sexual adjustments; 33 showed maladjustments ranging from frigidity to promiscuity and psychopathic behavior. Emotional disturbances were frequently a factor in upsetting the limited adjustment of the person with cerebral arteriosclerosis and precipitating a psychosis. A diagnostic breakdown showed that 34 patients had delirium as the presenting clinical picture, 19 agitated depression, 18 mental confusion, 4 depression, 5 manic-like states, and 4 paranoid states. Only 14 patients presented deterioration as the most prominent feature.

Of these 100 patients 11 recovered, 12 were much improved, 31 improved, 30 did not improve, and 16 died. Forty-nine patients were able to return home. Treatment consisted of psychotherapy and general medical treatment. None of the patients were treated with any more drastic modern procedures.

Certain measures are necessary in the management of these patients, irrespective of the cause of the mental disorder. In the early stages of the psychoses of old age the patient may commit serious errors of judgment before his irresponsibility has been recognized.

The physician who studies these cases with an open mind cannot help but conclude that pathologic conditions such as senile dementia and arteriosclerotic psychosis are not the sole causes for mental disorders of older people, but are factors in the total etiology in that they lower the adjustability of the whole organism and its physiologic processes, thereby making it easier for the various types of psychosis to develop.—Roscoe D. McMillan, M.D., Red Springs; North Carolina Med. Jour., Vol. 3, No. 3, March, 1942.

The Diagnosis and Treatment of Acute Occlusion of the Peripheral Arteries

FAY LeFEVRE, M.D.

DURING the past few years emphasis has been placed upon the early diagnosis of diseases of the peripheral vascular system, none of which is so important as the early diagnosis of acute arterial occlusion. Acute arterial occlusion is a real emergency, and early diagnosis and treatment are of greatest importance in the future course of the disease. In the early stages treatment may be of definite value, whereas, in the later stage conservative treatment is of little value, and surgical measures may be useless. The diagnosis of acute occlusion of the large arteries of the arms or legs is seldom difficult, as this condition presents characteristic signs and symptoms regardless of the type of occlusion.

Arterial embolism and thrombosis are the two most common types of arterial occlusion and are alike inasmuch as they both produce sudden arrest of blood flow. It is frequently difficult to distinguish them, but if possible a definite diagnosis should be made as it may determine the type of treatment to be initiated. By a careful evaluation of the history and physical findings a differential diagnosis can be made in the majority of cases.

ARTERIAL EMBOLISM

When a peripheral artery is suddenly occluded by an embolus, severe cramp-like pain usually occurs at the site of occlusion. Because of the ischemia and associated vasospasm the pain may involve the entire extremity. There is considerable tenderness to pressure over the actual area of obstruction. It is not advisable, however, to attempt to palpate with great energy the area of occlusion as this may cause further damage. For similar reasons the oscillometer which is frequently used to determine arterial pulsation should be used with caution. Shortly after the onset of pain the part of the extremity distal to the occlusion becomes pale and cold. The color and temperature changes vary depending upon the location and size of the vessel involved. If the occlusion is extensive, the skin distal to the occlusion becomes dusky and mottled within several hours, and a deep cyanotic appearance follows. Unless the response to treatment is satisfactory, the skin changes continue and actual gangrene may occur, which usually starts at the most distal point of the extremity. In about 20 per cent of the cases enough collateral circulation occurs spontaneously without treatment to cause the color and temperature to return to normal. The major pulses beyond the occlusion are absent. It is always important to attempt to palpate the pulses, as these are always absent or diminished immediately after occlusion.

The Author

● **Dr. LeFevre, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1931; member American Heart Association; Associate in Medicine, section on cardiovascular diseases, Cleveland Clinic.**

The foregoing symptoms and signs are found in the majority of cases. However, there are cases that do not present the sudden onset of severe pain as an initial symptom. In some of our cases the pain has come on hours after the onset of numbness and tingling. This suggests arterial thrombosis, but may also occur in embolism. Cases of arterial embolus have been reported in which pain has been completely absent, but this is exceedingly rare.

When a case presents the aforementioned signs and symptoms treatment should be started at once. The patient should be confined to bed, and the entire body should be kept warm with blankets. Heating pads and hot water bottles should not be applied locally to the involved extremity, although a heating pad may be placed over the abdomen. If the patient is hospitalized a heat cradle controlled by 96 degrees F. should be applied. The extremities should not be elevated, but lowered four to six inches below the level of the heart. Some vasodilator drug should be given at once, such as papaverine hydrochloride, ½ gr. doses intravenously, which can be repeated from three to four hours as needed. Severe pain can usually be controlled by codeine and aspirin, a capsule containing aspirin gr. x and codine sulphate, gr. ½, given every three or four hours is often effective.

Following this initial therapy the most satisfactory type of treatment is embolectomy, although this procedure is successful only if the diagnosis is made early. After 12 hours the chances for a satisfactory result are greatly reduced. After

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24 hours embolectomy should not be done unless the color and temperature changes are minimal. Thrombosis has usually occurred by this time and successful removal of the clot is not possible. The condition of the involved artery should also be considered. If the vessel shows changes associated with arteriosclerosis or thrombo-angiitis obliterans, the ability of the vessel wall to heal is greatly diminished. When embolectomy is done, heparin should be given at the time of operation and administered continuously by the intravenous drip method for at least 10 days.

A careful examination of the heart should be made as this is frequently the site of the embolus. Pearce[1] in a series of 296 cases found the heart to be the source of emboli in 69.2 per cent of the cases. If digitalis is indicated it should be given slowly, as rapid digitalization may cause the discharge of more emboli from the heart. If the patient is seen too late, or if his general condition does not permit of embolectomy certain conservative measures are helpful. We have used the positive and negative pressure apparatus (Pavaex) in a large series of cases with satisfactory results. The severe pain is frequently relieved immediately, and after a long period of treatment the collateral circulation may be greatly improved.

We have had no personal experience with the use of intermittent venous occlusion apparatus, but the results seem to be equally satisfactory. Collins and Wilensky[2] have used this type of treatment extensively. In either case adequate treatment is necessary, and at the onset should be given continuously if it is well tolerated. With improvement the treatment may be given in shorter courses such as two hours twice daily. A total of at least 100 hours should be given, although we often give longer courses of treatment if the patient continues to improve.

ARTERIAL THROMBOSIS

Acute arterial occlusion secondary to thrombosis frequently presents a slightly different picture from embolism, although obviously both conditions result in a sudden arrest of blood flow. Arterial thrombosis is frequently associated with chronic diseases involving the arteries such as arteriosclerosis and thrombo-angiitis obliterans, both of which may result in a gradual complete occlusion or thrombosis. Because of the gradual progression before complete closure collateral circulation often has time to form spontaneously, and complete occlusion may occur without sudden severe pain. However, in the majority of cases thrombosis is associated with pain, although it is usually not so severe as that of embolism. These patients are usually in the older age group and may have a past history of arterial insufficiency which has been progressive for several years. Intermittent claudication, numbness, coldness, and color changes involving the extremity have usually been noted by the patient. An examination of both extremities shows signs of a decreased circulation. The pulses on the side without the thrombosis may be decreased, and there may be some trophic signs involving the skin and nails.

Arterial thrombosis may occur in the absence of degenerative arterial changes. It commonly occurs following trauma[3] or after exposure to excessive heat or cold. Patients suffering from frostbite may have thrombosis of the large as well as the small vessels.

Embolism and thrombosis must be distinguished in determining whether or not embolectomy can be done. If the occlusion is secondary to thrombosis associated with any of the above conditions, it is not possible to do an embolectomy, and any attempted surgical procedure of this type may be dangerous. In arterial thrombosis a trial with conservative treatment is indicated unless there is rapidly progressive infection with gangrene. Similar measures as described under the treatment of embolism should be carried out. Bed rest and proper heat are essential. Spasm should be relieved, and some form of mechanical therapy started. The extremities should be carefully examined for the presence of venous thrombosis, ulceration, and infection. In the presence of these conditions mechanical treatment should be used with great caution. If the thrombosis is progressive it is usually advisable to start the administration of heparin as described.

All patients with vascular disease should be informed as to the nature of their condition so that intelligent care can be taken at home. Protection from excessive heat, properly fitting shoes, and routine hygiene measures are essential for a favorable result.

Certain patients do not develop adequate collateral circulation for tissue needs in spite of treatment, and ulceration and gangrene of the extremity may result. If the gangrene is rapidly progressive and the patient develops toxic signs, amputation may be the only form of treatment, and should be done immediately and at a high safe level. If ulceration develops but does not spread rapidly, it is usually advisable to proceed slowly and allow the area of gangrene to become demarcated. Obviously, each case is an individual problem and should be evaluated as such.

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Cleveland Clinic.

Facilities for the Treatment of Alcoholics in the General Hospitals of Cleveland, Ohio

MARTIN H. MILLER, M.A.

The Author

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RECENT generations which in America have seen the elimination, prevention, or effective control of many diseases formerly the scourges of mankind have witnessed no comparable developments in the medical treatment of alcoholics in Cleveland. Only when seriously afflicted can the alcoholic expect medical attention here, and then merely of his more obvious physical symptoms, by way of affording temporary relief. Hospitals rarely treat him with the hope of effecting permanent cure. He may be subjected to bed rest, sedatives, dehydration, purgation, restraint, or spinal puncture, depending upon his condition; his life may be saved. But in no respect is treatment provided to forestall his return to the very same bottle which brought him to acute alcoholism.

Even medical care is administered reluctantly to alcoholics by Cleveland hospitals. Their attitude is expressed by Dr. E. L. Harmon, assistant director of the University Hospitals, who, referring to his own hospital, stated:[1]

> "It is the policy of this hospital not to accept alcoholics for treatment at all inasmuch as our facilities are not designed for the care of alcoholic, chronic, or mental cases. This means that generally speaking we receive in our emergency division occasional cases of intoxication, some of which are complicated by other conditions which necessitate some type of emergency treatment, usually surgical, as a result of some injury sustained before being brought to our emergency division. Under such circumstances the patient is rendered whatever care is indicated. This, of course, requires concomitant treatment of his intoxication. Persons brought in purely for intoxication to our emergency division usually receive a stomach lavage, and any necessary stimulation. They are then as a rule, if their condition warrants, turned over to the Police Department where, I believe, they are given lodging until the individual has recovered from the effects of his spree.

"However," he continued, "there is an irreducible minimum of such cases which we are forced to accept irregardless of policy." These are cases which, frequently complicated, are critical and must be treated immediately in the emergency division of the institution. In 1937, for example, 71 alcoholics were admitted to the hospital. The medical complications in this group were: pneumonia, nine cases; lacerations and contusions, three; skull fracture (concussion), one; other fractures, one; inflicted wounds, none; operations, four.[2]

The small number admitted—71 during an entire year in an institution which has a bed capacity of 802—is a reflection of the attitude found throughout the Cleveland hospitals, not excluding the City and State hospitals. Such has been the case in past years also. Fifty-eight alcoholics were admitted to the University hospitals in 1936, 69 in 1935, and 36 in the last six months of 1934. In the 15 years, 1923-1938, 85 admissions was the maximum for alcoholics at St. Luke's Hospital, an institution with a bed capacity of 391. This occurred in 1938. The minimum of admissions of alcoholics was 18, in 1931; the yearly average for the period, 45.

Although comparable figures covering several years were not obtained from other hospitals, they were obtained for the year 1937 from 18 of the 20 general hospitals in Cleveland. These statistics and the policies and experiences of the hospitals are listed according to hospital in the Table, "Alcoholics Admitted to Cleveland General Hospitals, 1937.[3] Not one institution is on record as willing to accept alcoholics as readily as other patients. Many of them occasionally accept an alcoholic, but invariably it is a patient referred by a doctor on their staff. The only other condition under which an alcoholic is granted admittance is emergency where life is involved. The 18 hospitals, with a bed capacity of well over 2,500 beds, have among them only one private room set aside for alcoholic cases; and no beds are specifically designated for them in any of the institutions reporting. Neither mental nor medical cases involving alcoholics are admitted, if the institutions can avoid accepting them. For illustration H. L. Rockwood, Director of Mount Sinai Hospital, one of Cleveland's largest hospitals, explains that:

> "It is not unusual to have certain after-effects from alcoholism referred for hospital care but

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This paper is part of a more comprehensive study of treatment of persons charged with intoxication in the municipal court of Cleveland, made under the guidance of Prof. Charles E. Gehlke of Western Reserve University, which deals with the house of correction, the court, state and city hospitals and other agencies.

This article is published by The Journal with no thought of indicting the Cleveland hospitals, but because these Ohio institutions present a condition typical of American cities, and which presents a serious challenge.

ALCOHOLICS ADMITTED TO CLEVELAND GENERAL HOSPITALS, 1937

Policy of Hospitals Regarding Admittance and Treatment of Alcoholics

HOSPITAL	BED CAPACITY for		ADMITTANCE OF ALCOHOLIC		POLICY REGARDING ADMITTANCE OF ALCOHOLICS	POLICY IN RESPECT TO TREATMENT
	Total	Alcoholics	Mental	Medical		
East End	25	not stated	not accepted	6[a]	friends of staff	not stated
East 55th	not stated	0	not accepted	not accepted	referred to other institutions	not treated
Emergency Clinic	not stated	not stated	no figures available	no figures available	accept Delirium Tremens, alcoholic hallucination	
Fairview Park	113	0	no figures available	no figures available	rarely accepted	returned to home or police
Evangelical Deaconess	not stated	not stated	not accepted	no figures available	emergency, physician's referral	not stated
Glenville	109	not stated	not accepted	no figures available	emergency unconscious	returned to home or police
Grace	not stated	0	not accepted	no figures available	emergency	not stated
Huron Road	not stated	not stated	no figures available	no figures available	not accepted	not treated
Lakewood City	83[b]	0	0	6	emergency, no chronic	not stated
Lutheran	137	0	0	12[c]	except in mild cases referred to other institutions	not stated
Mt. Sinai	225[b]	not stated	not accepted	0	emergency	first aid
Polyclinic	not stated	not stated	not accepted	not accepted	not accepted	
St. John's	213[b]	1 private room	not accepted	28	unconscious condition	sedation and supportive measures
St. Luke's	391	0	4	58	physician's referral	according to case and physician
St. Vincent Charity	288	0	no figures available	no figures available	emergency complications	no definite treatment, observation 4-6 hours
U. S. Marine	251[b]	not stated	not accepted	not accepted	not accepted until recovered from alcoholism	not treated
University	802	0	12	24	emergency	stomach lavage and stimulation
Women's	110[b]	0	not accepted	6	emergency	not stated

[a] Two or three returned several times.
[b] *Social and Civic Agencies in Greater Cleveland* (Cleveland, 1937), II, 190-201.
[c] Yearly average for years 1930 to 1936 inclusive.

when these cases are mental cases it is our usual policy not to accept such cases for the reason that we are not adequately prepared to give them the necessary restraint and keep them under the necessary supervision for their personal safety."[4]

That Cleveland hospitals hesitate to accept alcoholics, whether or not classified as mental or physical cases, is especially significant. The serious alcoholic medical case is invariably a bed patient, one who can be treated effectively only in an institution where a physician or a medically-informed attendant is subject to immediate call. The mild mental case requires psychiatric attention he generally is unable to afford, the serious one, like any other equally deranged person, must be institutionalized if only to safeguard the community. Extremely little service of either a medical or psychiatric nature can be obtained by alcoholics in Cleveland hospitals.

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1. E. L. Harmon, M.D.: Letter to author, April 8, 1939.
2. Based on records of University Hospitals, obtained from Dr. Harmon.
3. Two hospitals did not supply information. Neither city nor state hospital is included. They were dealt with separately in the study—"Treatment of Persons Charged with Intoxication in the Municipal Court of Cleveland, Ohio," M. H. Miller, Western Reserve University, 1938.
4. H. L. Rockwood, M.D.: Letter March 28, 1938.

For extensive experience of a hospital with treatment of alcoholics see "Alcoholism at the Boston City Hospital," by Merrill Moore and M. Geneva Gray, New England Journal of Medicine, pp 45-61, July 13, 1939. Quarterly Journal of Studies of Alcohol, published at Four Hillhouse Avenue, New Haven, Conn., and sponsored by The Research Council on Problems of Alcohol, associated with the American Association for the Advancement of Science, contains a number of articles by outstanding physicians, psychiatrists and social scientists interested in the field of alcoholism.

Tuberculin Testing

Tuberculin testing in a secondary school in Canada disclosed that out of 16 pupils who used the school bus 15 reacted positively to tuberculin, and one proved to be in the early stage of tuberculosis when X-ray examination was made. The driver of the bus, when examined, was discovered to be an open case of tuberculosis. Thirteen of the children were the only positive reactors in their respective families. The report of this investigation was made by Dr. William D. Hay to the Canadian Public Health Association, December, 1941.—Can. P.H. Jour., January, 1942.

Outline for the Treatment of Pulmonary Gas Poisoning

WILLARD CROSLEY, M.D.

THE importance of treating pulmonary irritant gassing in the pre-edemic stage is so emphasized by all authors that I believe an outline of treatment should be in every Emergency Room and Field First-Aid Unit.

Statistics show that there is a marked increase in lives saved if the therapy is instituted within two hours after exposure. Animal experiments at Edgewood Arsenal bear this out.

The gases usually involved are—chlorine, mustard gas, phosgene, diphosgene palite and superpalite whose end product is hydrochloric acid, the irritant causing the Pulmonary Edema. All treatment should be aimed at neutralizing this irritant and diminishing the fluid shift to the lungs with the resultant Pulmonary Edema and death from asphyxia. The following outline shows stages of Poisoning:

1. Immediate sensory reflexes; 2. Pre-Edemic stage—stage of Hydremia; 3. Pulmonary edema —progressing to acute death or recovery; 4. The restorative stage.

OUTLINE OF THERAPY

1. **Intravenous injection of Urease with Urea:** (Urease, a ferment, acts on the Urea of the blood, liberating ammonia directly into the lung tissues, neutralizing a portion of the acid.)

2. **Subcutaneous injection of one grain of Emetine Hydrochloride:** (Fluid escapes into the lungs because of the great dilation of the pulmonary capillaries and its resultant stasis. Emetine causes a capillary constriction thus diminishing the fluid escape to some extent.)

3. Stimulants are indicated for circulatory collapse. Coramine or caffeine sodium benzoate, one ampule, (intravenous or intramuscular), or neo synephrine minums V intravenous or intramuscular. Pituitrin, nitrites, morphine, atropine and phenacetin are contraindicated because of their effect on respiration and circulation. However, in severe excitement morphine sulphate may be used judiciously.

4. Intravenous injection of concentrated blood plasma, four to one concentration. (This prevents the development of pulmonary edema to some extent by increasing the colloid osmotic pressure in the hydremic stage so as to prevent the loss of flow from the capillaries. Clinically it has been used in a four to one concentration on seventy patients by J. M. Hill, M.D., of Dallas, Texas. He had only two transient urticarial reactions and one febrile reaction. The febrile reaction occurred when the interne further diluted the plasma with unsuitable pyrogenic distilled water. After pulmonary edema develops, this is the most effective single therapeutic constituent that can be given.

5. Absolute bed rest and continuous oxygen using a tent or nasal catheter for 24 to 72 hours.

6. With pulmonary congestion there is a dilatation and weakness of the right heart. Intramuscular or intravenous injection of digifoline grain III every four hours until effects of digitalization are observed. Oral administration is of no benefit because of slow absorption.

7. **Severe coughing:** Coughing is beneficial when it results in expectoration of fluid; oxygen usually diminishes the cough but if it does not codeine gr. I is the drug of choice.

8. Venesection for pulmonary edema of irritant gas poisoning is little used because the patient with moderate or severe exposure to the gases is usually in circulatory collapse. The intravenous injection of concentrated plasma treats both the circulatory collapse and pulmonary edema.

9. Intravenous injection of calcium chloride has been reported as highly efficacious in pulmonary edema. Its beneficial action is believed to be due to a reduction in capillary permeability. Calcium gluconate may also be used.

All these steps in therapy have been tried individually and collectively and have been found to lower the death rate in each experiment.

In every emergency of moderate and severe pulmonary gas poisoning, patients should be treated according to the following procedure.

TREATMENT OF PULMONARY IRRITANT GASSING

Immediate—1. Intravenous urease with a few crystals of urea; 2. Subcutaneous injection of Emetine hydrochloride—1 grain.

Within Two Hours—1. Intravenous concentrated plasma—four to one concentration; 2. Absolute bed rest with oxygen therapy; 3. Digifoline gr. III intravenous or intramuscular every four hours until effects of digitalization are observed. Coramine or caffeine sodium benzoate one ampule, intravenous or intramuscular for stimulants; 4. Codeine gr. I every three to four hours for severe uncontrollable coughing.

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Submitted March 17, 1942.

Prevention of Recurrent Hyperthyroidism

JOSEPH L. DeCOURCY, M. D.

THE recurrence of hyperthyrodism after thyroidectomy is an extremely unpleasant and undesirable experience for both the patient and the surgeon. Yet it is an experience which still seems to occur with unwarranted frequency, even though much progress has been made during recent years toward reducing the incidence of such recurrences.

Reviews on the subject are quite revealing. About 11 years ago, in a comprehensive study of the literature, Thompson, Morris and Thompson[1] found that, among the different series of cases reported, the incidence of thyrotoxicosis following subtotal thyroidectomy for exophthalmic goiter ranged from 0.25 to 25 per cent. Twenty per cent of their own series of 190 cases had persistent or recurrent thryrotoxicosis, as revealed by a follow-up of from three months to six years after surgery.

Later, in 1937, after a similar study, Gillette[2] concluded that 10 per cent of patients undergoing surgery for exophthalmic goiter will have a recurrence of their thyrotoxic symptoms. Thompson and his associates[1], however, stressed the fact that the frequency with which this recurrence is encountered will depend, in some measure, on how carefully the patients are followed and upon how well their postoperative course is interpreted.

This is a view with which we fully concur. It is our opinion, and one which we[3] have expressed before, that all patients who have undergone thyroidectomy require frequent examination by one who understands thyroid behavior and who can determine to what extent the operation has been a success. The importance of proper postoperative care is so great that, if the operation and its follow-up treatment can remain in the hands of the same surgeon for months or years if necessary, the benefit to the patient is almost immeasurable. Unfortunately, such an arrangement is too seldom feasible.

Our experience[4] has proved that by means of a careful primary operation good postoperative care, followed by the maintenance of a normal basal metabolic rate through the administration of desiccated thyroid and an ordered regimen, the recurrence of hyperthyroidism can be reduced to extremely low proportions. In our last series of 1,000 thyroidectomies, our recurrence rate has been less than 1 per cent.

As a matter of fact, it is no longer a problem with us to decide how much gland should be allowed to remain when doing a thyroidectomy. However, we[3] still believe that it is better to remove too much rather than too little of the tissue. It should not be forgotten that it is far easier to control hypothyroidism than it is to overcome hyperthyroidism. The administration of desiccated thyroid will maintain a normal basal metabolic rate in cases of the former condition, but at present surgery is our only certain recourse in the latter instance.

However, this does not mean that we perform a complete thyroidectomy. We always leave sufficient thyroid tissue at the posterior portion of the gland, so that subsequent scar tissue formation does not jeopardize the recurrent nerves or the parathyroid glands. Moreover, tetany and nerve paralysis do not occur. As a consequence of such surgical procedure, together with our present methods of postoperative care, a normal basal metabolic rate can be maintained after thyroidectomy. As has been indicated in a previous paper,[4] this last point is a prime factor in our method of preventing recurrent hyperthyroidism.

On rare occasions, a temporary tetany has occurred following thyroidectomy within 24 to 48 hours. This is probably due to edema of the parathyroids. However, this temporary condition readily responds to calcium therapy and usually disappears within 12 hours. Tetany has occurred only twice in our last 1,000 cases and did not recur. No instance of permanent cord paralysis has appeared in this series of thyroidectomies.

Because of the discomfort which it causes the patients, tracheitis with mucus formation still gives us considerable concern. During the past year we have had sputum examinations made following all of our thyroidectomies and we have been surprised to find that pneumococcic organisms of various types were present in the great majority, about 80 per cent, of our cases. Therefore, we have started giving sulfapyridine, 7½ grains every four hours for several days, prior to operation. By this method we have con-

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From the Department of Surgery, DeCourcy Clinic.
Submitted January 23, 1942.

siderably reduced the discomfort of tracheitis in our thyroidectomized patients.

In one phase of our postoperative treatment we diverge from customary procedures and we attribute much of our success to this therapy. At the DeCourcy Clinic we have found that by administering ½ grain of thyroid extract twice a day after all thyroidectomies, over a period of one year or more if necessary, we no longer need fear the recurrence of hyperthyroidism. In fact our recurrence rate is practically nil, and this holds true even though the patient frequently returns to the same life that he or she was leading when the hyperthyroidism developed.

We have been prescribing desiccated thyroid, in ½ grain doses twice a day beginning about two weeks after the thyroidectomy, as a means of maintaining the basal metabolic rate within normal limits. Such treatment is continued for at least three months. After this time, the patients are observed regularly at one month intervals and repeated metabolism tests are made. Where such examination and tests indicate that the residual portion of the gland does not maintain the basal metabolic rate within the normal range, that is, if the reading falls below minus 10, administration of desiccated thyroid is resumed. This follow-up and medication is continued over a period of several years, if necessary. Obviously, the administration and dosage of desiccated thyroid must be individualized and based upon frequent observations and metabolic tests.

We feel that, by keeping sufficient thyroid in the blood stream following operation, the thyroid remains at rest, as it were, and that recurrence of hyperthyroidism will not develop. In our opinion this is the answer to the prevention of recurrences, which have been previously reported in quite a high proportion of cases.

This thyroid medication also tends to prevent sluggishness, aching and cramped muscles, puffiness of the face and other symptoms which occurred regularly following thyroidectomy. It must be pointed out that such thyroid medication constitutes only a part of the procedure, though indeed an important part. The administration of the drug must be accompanied by the institution of an orderly mode of living.

In a previous discussion on this subject,[4] we emphasized that patients who have had thyrotoxicosis require careful supervision and sympathetic understanding on the part of the physician if they are to live a normal life, free from recurrence of their previous condition. We stressed the importance of adequate physical and mental rest and the need for relaxation and pleasure. Patients who have undergone thyroidectomy should be taught to avoid fatigue and such mental stresses as worry, excitement and similar psychic disturbances. We admit that this is often difficult to achieve nowadays, but a careful and understanding physician can do much toward the prevention of recurrences.

We began to use this form of treatment postoperatively several years ago, after we had discovered that desiccated thyroid extract was more beneficial in the treatment of nontoxic diffuse goiter than was iodine. As a matter of fact, we have had striking results in the treatment of such goiters by the oral administration of thyroid rather than by depending solely upon iodine as heretofore. Nontoxic diffuse goiter regularly diminishes in size and disappears with thyroid extract; whereas, with iodine, the thyroid gland frequently becomes bosselated and enters into the phase of nodular goiter.

On the basis of our experience and opinion that the administration of thyroid extract causes an atrophy of the gland due to disuse, we used this treatment upon three patients with diffuse toxic goiter who had refused operation. The following is one of the case reports:

CASE REPORT

Mrs. H., age 35, was examined at the clinic on March 5, 1941, and found to have exophthalmic goiter with marked protrusion of the eyeballs. Her basal metabolic rate (three readings) was plus 65. The pulse rate was 130. She had lost 15 pounds in weight during the preceding two months. She was advised to have a thyroidectomy but refused operation.

On March 12, she was given Lugol's solution, 10 drops three times a day. This was continued until March 27, at which time she seemed to have reached the maximum effects of the medication. Her basal metabolic rate had dropped to plus 39. The Lugol's was then lowered to 5 drops once daily and one grain of desiccated thyroid was given twice daily.

On April 10 the Lugol's solution was stopped and 1 grain of desiccated thyroid twice daily was continued. On this date the patient had shown a weight rise from 118 to 130 pounds, a gain of 12 pounds in five weeks. Her thyroid had undergone involution and her systemic condition was greatly improved. Her pulse, after rest, was 86.

Examination on June 6, two months later, during which time 1 grain of thyroid twice a day was taken exclusively and continually, showed a distinct improvement. Although her basal metabolic rate still remained plus 35, the size of her thyroid had diminished to one-half of what it had been two months previously. Her weight had increased by 2½ pounds to a level of 132½ pounds. Tremor had diminished; but her heart beat, with a rate of 86, was still high. Thyroid 1 grain twice daily was continued.

On June 20, the patient's weight had increased to 137 pounds. The basal metabolic rate was plus 33. Tremor was markedly lessened; the thyroid had diminished in size and was of colloid consistency.

On August 15, the patient's weight was 134 pounds; basal metabolic rate was plus 13; tremor absent; heart beat 78 sitting, 72 resting in bed; thyroid still palpable but diminishing in size.

SUMMARY

This patient with exophthalmic goiter refused operation and was treated by administering

1 grain of thyroid twice daily for five months. Her basal metabolic rate fell to within normal range; her heart rate was restored to practically normal values; she had more than regained her lost weight; and the thyroid gland, though still palpable, had greatly diminished in size and was of more normal consistency.

DISCUSSION

The results in this case are quite indicative. However, in line with these findings, we should like to call attention to the recent work of Rienhoff, who has done much to elucidate the physiological basis for such therapy. In 1940, Rienhoff[5] reported that, from the clinical as well as the histological standpoint, atrophy of the thyroid gland could be produced in cases of simple diffuse goiter and nodular colloid goiter, as the result of the oral administration of desiccated thyroid.

The changes observed in the histological structure of the thyroid appear to substantiate his hypothesis that the secretion of the thyroid in the blood stream probably determines the degree of activity of the thyroid parenchyma at any given time. Thus, in his opinion, the cellular activity of this gland would occur at a minimum rate in the presence of an abundance of exogenic thyroid in the blood stream.

As a result of his more recent studies, Rienhoff[6] noted: "Tentatively it may be suggested that the administration of desiccated thyroid to patients with hyperthyroidism brings about, in some cases at least, a functional atrophy of the thyroid gland". In at least one of his recent series of cases, there is evidence which indicates that thyroid medication resulted in structural atrophy of the thyroid gland.

While at this time we would not recommend medical treatment of exophthalmic goiter, we feel that our experience should dispel the older concept that giving thyroid to these patients is only "adding fuel to the fire". While we realize that this treatment is not new, having been used years ago, our understanding and differentiation of thyroid diseases has vastly improved and we are now able to try this treatment where true hyperthyroidism actually exists.

Although we are quite willing to admit that our experience with this treatment is very limited and might be discredited in the treatment of exophthalmic goiter, we are sure that thyroid medication will serve as a preventive of recurrences and will add greatly to the comfort of patients who have had thyroidectomy performed. We also feel that we have dispelled the fear of using thyroid postoperatively in these cases.

It is our opinion that, while involution of the gland occurs following the preoperative use of iodine, its value is only temporary and the continuous use of iodine will not prevent the return of the hyperthyroidism. Because of this, we have always considered it useless to give iodine postoperatively over a long period of time. The portion of the gland which is allowed to remain at the time of operation remains hyperplastic, so that thyroidectomy is only a quantitative cure and not a qualitative one. Consequently, if we can cause a disuse atrophy to occur in the remaining portion of the gland by giving thyroid, we will have gone a long way toward the permanent relief of hyperthyroidism.

CONCLUSIONS

(1) A careful primary operation and good postoperative care followed by the administration of desiccated thyroid and an ordered regimen, have reduced our rate of recurrent hyperthyroidism to less than 1 per cent.

(2) Selected patients with hyperthyroidism who refuse operation may be benefited by oral administration of thyroid. A case in which such treatment has been of marked value is reported in detail.

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Functions of Procurement and Assignment Service

The primary objective of the Procurement and Assignment Service is to maintain a complete list of all physicians, dentists, and veterinarians of the entire country with detailed information as to age, physical condition, professional qualifications, and availability for service in the various military, civil and industrial agencies of the country. This information has been tabulated on the punch-card system. All agencies of the Government which utilize the services of physicians, dentists and veterinarians are making requisition upon the Procurement and Assignment Service for personnel. These requisitions state the age, professional qualifications, and the physical condition of those professional people whose services are desired by these agencies. Lists are prepared from the rosters and forwarded to the requisitioning agency. At the same time, the Procurement and Assignment Service will notify the people whose names have been tendered to the requisitioning agency that they have been chosen to enter upon their new duties, and these men will be asked to appear for physical examinations.—Major Samuel F. Seeley, Washington, D.C.; Jour. Ind. S.M.A., Vol. 35, No. 3, March, 1942.

The Prevention and Suppression of Lactation with Diethylstilbestrol

J. W. DOUGLAS, M.D., JOHN F. WANLESS, M.D., AND D. DALTON DEEDS, M.D.

THE most common method used in the past to prevent or to suppress lactation has been the application of a tight breast binder, restriction of fluids, purgation of the patient, and the avoidance of external stimulation to the breasts. This method presents certain disagreeable features. In the first place, the majority of cases treated in this manner have some degree of breast tenderness, which is often severe enough to require analgesics. Secondly, purgation is obviously disagreeable to the patient. In the third place, restriction of fluids to the degree necessary to obtain results is not always a wise procedure in the puerperium. Finally, the nursing care is complicated in such a regime.

The intramuscular injection of camphor in oil to suppress lactation has been reported.[1] This procedure, however, has not been generally accepted and has even been condemned.[2]

Numerous reports of the effects of the biologic estrogenic hormone on lactation have appeared in the literature.[3,4,5,6] The synthesis by Dodds and his co-workers,[7] in 1938, of an estrogen, diethlystilbestrol, has stimulated further work along this line. Kellar and Sutherland,[8] Wenner,[9] Wenner and Joel,[10] Mazer et al.,[11] and Muckle[12] have reported the efficacy of diethylstilbestrol, commonly called stilbestrol, in suppressing lactation. Connally et al.[13] noted that lactation was suppressed in 70.5 per cent of a series of 200 cases to which the drug was given. Lactation was not completely inhibited in a single instance, although its onset was delayed to about the fifth or sixth day following delivery. None of their patients complained of painful breasts. Abarbenal and Goodfriend[14] have reported that stilbestrol is useful in preventing and relieving painful engorgement of the breasts in the non-nursing mother.

CLINICAL MATERIAL

On the obstetrical service of the Cincinnati General Hospital we have used stilbestrol in 28 postpartal women for the purpose of suppressing or preventing the secretion of milk. The form of the drug used has been diethrol (diethylstilbestrol), or 4-4′ dihydroxy alphabeta diethyl stilbene.* Each tablet contains one milligram of the drug and represents 125,000 international units of the estrogenic hormone assayed according to the method of Allen and Doisey.[15] Because of the greater simplicity of administration only the oral form of the drug was used. The reasons for the prevention or suppression of lactation were variable. There were five cases with retracted nipples, two with scarcity of milk, twelve with stillborn infants or infants who died shortly after birth, two whose babies failed to gain weight on breast milk, one who developed pneumonia, one with epilepsy, two with pulmonary tuberculosis, one who developed a breast abscess, one who developed a dermatitis, and one with crusted and cracked nipples.

The patients were divided into two groups: Group 1, the cases in which there were no symptoms and lactation had not begun; Group 2, cases who were lactating, or in which engorgement with or without pain was present. Most of the cases in Group 2 had received some type of external mammary stimulation (nursing, breast pump, or manual expression). In all cases an uplifting breast binder was used. There was no restriction of fluids and in most cases fluids were forced, a program which is followed routinely in all postpartal cases in this hospital.

DOSAGE

In the first few cases one milligram of diethrol three times daily for three days was given. Since this dose had to be increased or prolonged in several instances, it was decided to give five milligrams twice daily for three days, if the patient was not lactating, and five milligrams three times daily for three days, if milk secretion had al-

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Submitted February 13, 1942.

*The drug was supplied through the courtesy of The Wm. S. Merrell Co.

From Department of Obstetrics, University of Cincinnati.

ready begun or if marked engorgement or pain was present. These daily dosages were prolonged depending upon the presence or absence of symptoms and upon the presence of lactation. It has been reported that nausea and vomiting following the administration of stilbestrol can be eliminated to a marked extent by giving the tablets crushed in milk.[16,17] We have followed this procedure in all of our cases.

RESULTS

In Group 1 there were 18 cases, 11 of these being followed after discharge from the hospital. In six of these cases no mammary secretion occurred and no pain developed. In eight cases pain was never present but milk secretion did occur, either before discharge from the hospital or afterwards. This persisted from one day to two weeks. In only one of these cases was the milk present in large amounts. In four cases some breast tenderness occurred. This was minimal in two; in one the pain disappeared in 48 hours as therapy was continued; in the fourth case milk flow returned four days after hospital discharge and persisted for several weeks, associated with some pain. This patient manually expressed the milk from her breasts.

In Group 2 there were 10 cases, of which eight were followed. In seven of these cases the breasts were hard, tender, and milk was present in variable amounts. In two, no symptoms were present but milk secretion had begun. In one, no milk could be expressed, and pain was absent, but the breasts were indurated. Tenderness and induration were eliminated in one to five days after the administration of the drug was begun. In only four cases was lactation completely suppressed while the patients were in the hospital. In two of these, there was a recurrence of milk secretion which lasted from one to two weeks. In one case a watery secretion, associated with painful breasts, was present for one month following discharge.

TOXIC EFFECTS

In agreement with other reports[13,18] in which stilbestrol has been used in the puerperium, we have not found toxic symptoms after oral use of the drug in dosage as high as 2,605,000 international units given over one week's time. One case, a severe diabetic, was nauseated on two occasions and vomited once. These symptoms occurred before the morning dose of stilbestrol was given, and since the patient complained of nausea for many weeks after the drug had been discontinued, we do not feel that stilbestrol was the cause of the patient's gastro-intestinal symptoms.

CONCLUSIONS

1. The results from the use of oral stilbestrol in 28 postpartal cases to prevent or suppress lactation have been reported.

2 The use of oral stilbestrol, in this series of cases, was found to be a satisfactory method of inhibiting lactation and preventing painful engorgement of the breasts, if they were not stimulated.

3. In cases already lactating the administration of oral stilbestrol did not prove highly efficacious in completely suppressing lactation. However, we believe that the results from the use of the drug in these cases will be as good as those following the measures of dehydration.

4. No toxic symptoms were noted following the use of oral stilbestrol.

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In deep depressions and melancholia, severe pain is not a common symptom except in those cases where hypochondriacal trends are conspicuous; in this instance we are usually dealing with somatic pain delusions. In the milder depressions, particularly where there is considerable tension, there is increased pain sensitivity. The picture may be quite similar to that found in neurasthenia and anxiety states.—Clarke H. Barnacle, M.D., Denver; Rocky Mountain Med. Jour., Vol. 39, No. 3, March, 1942.

Penetrating Wounds of the Eyeball in Industry

A Survey of Fifteen Cases

H. V. PHELAN, M.D.

AT the present time when we are all confronted with a national emergency, it is necessary that each of us contribute all we can to supply those in the front lines with the implements of war that are necessary for our defense. Lost time in the plants limits the amount of production, so we must reduce that to a minimum. One of the most frequent injuries which we have to contend with in defense projects at this time are injuries to the eyes and especially penetrating wounds of the eyeball. It falls upon each and every one of you men to see that when these accidents happen that the days lost and the permanent disabilities are reduced to the lowest extent, so that the wheels of armament may be kept running.

I am presenting the following resume of cases seen in this hospital during the past year of penetrating wounds of the eyeball. It included the operative procedure and the end results obtained — that is — visual acuity and the percentage of eyes saved.

Before we go into the above there are a few things that I would like to impress on the staff and the visiting men because this hospital serves many plants that do work for National Defense. That is the early diagnosis and operative treatment, for they are all surgical. Even when in doubt as to whether the wound has penerated the sclera, but there is a laceration of the conjunctiva, the sclera should always be exposed. This can be done with little or no risk. When you men are confronted with eye injuries there is one thing I would like to bring home. Don't wait to see if the eye will clear up itself and don't wait until tomorrow or the next day before you call in an oculist. Penerating wounds of the eye are very deceptive, the patient's responses as to pain, vision, etc., are not reliable. The symptoms which you will consider as alarming will not become evident until 48 hours or more have elapsed and then treatment or operative intervention will be of no avail because plastic iritis, anterior or posterior synechia or panophthalmitis has already set in and the only thing left to do is enucleation. On the other hand, you do not want to call into consultation an oculist for the more or less minor injuries that you may see affecting the eye. I will therefore try to point out to you a few of the salient points which you may utilize in the differential diagnosis of these conditions and thus be guided in when consultation may be necessary.

The Author

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CHIEF DIAGNOSTIC POINTS

One of the chief diagnostic points in the diagnosis of penetrating wounds of the eye outside of those of the cornea and limbus which are self evident is subconjunctival hemorrhage which may close off the laceration or make it difficult to recognize. This causes a swelling of the conjunctiva. In an ordinary blow to the eyeball with hemorrhage the bleeding is diffuse and more or less localized. It does not become progressively more extensive. There is no localized elevation of the conjunctiva. But in penetrating wounds the hemorrhage is progressive and they become rapidly more extensive. There is an elevation over the area of penetration similar to a volcano. This is due to a rupture of the vessels of the choroid which bleed very freely. Thus if you have a case which gives even a vague history of feeling as though something hit him in the eye, or has a smarting burning sensation with bulbar conjunctival hemorrhage which is getting progressively more extensive or there is pain out of proportion to what you can account for, you are probably dealing with a penetrating wound of the eyeball. The pain comes from the laceration of the sclera. In these days of defense programs where there are neophytes working on machines and lathes, not realizing the dangers and not taking precautions, a small chip may hit them in the eye and penetrate the eyeball without realizing the seriousness of their injury. Working on high speed lathe of 3600 r.v.m. or more a chip can come off of it with terrific speed and penetrate the eye with little or no pain.

When these wounds occur in the area of the cornea the signs and symptoms are more notice-

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Read before the monthly staff meeting at St. Alexis Hospital, January 19, 1942.

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able, unless it is a very small piece you can usually see the cloudiness of the cornea in the region of penetration and a staining showing ulceration. Usually we use fluorescein for showing denuding of the cornea but ordinary 5 per cent mercurochrome will also show a stain. In most offices the latter is always available. Often there is a prolapse of the iris with a loss of aqueous and a subsequent shallow anterior chamber and the lens pressed against the cornea. The pupil is irregular or ovoid. There is usually a marked impairment of vision and sometimes cloudiness of the lens, this can occur rapidly, in a matter of minutes if the foreign body has penetrated it. Pain may or may not be present, usually unless there is an incarceration of the iris in the wound the pain is not a predominate symptom. Photophobia is the chief complaint.

In those wounds caused by interocular foreign bodies of glass you are confronted with a different problem. It doesn't show on X-ray, neither can you see it, you have to depend on the sense of touch. These cases are better off if you leave them for a few days and hope that the interocular pressure will force the glass out through the original opening. Then it can be removed by grasping the glass and bulbar conjunctiva and remove both with a wide cut with scissors. The sclera can then be sutured and reinforced with conjunctival flap.

IMPORTANCE OF CASE HISTORY

The history in all these cases is important. What were they doing, what kind of metal were they working with. Of course you all know that high speed steel is nonmagnetic, neither will other metals respond to the magnet. In those cases which have interocular foreign bodies that are magnetic, I believe that the best way to remove them is to expose the sclera and then apply the magnet. Select the proper tip and apply it directly to the scleral wound and apply the current at intervals. You can feel it and so can the patient if the foreign body is being attracted. Nonmagnetic foreign bodies if they can be absolutely localized either through X ray or the ophthalmoscope can be grasped through the original opening with forceps and removed, usually with some loss of vitreous.

So thus we have a few signs and symptoms by which we may be guided. If you do not wish to call in consultation but at the same time are in doubt you should by all means take a flat X-ray plate, both anterior, posterior and lateral. Of course this will only show up any foreign bodies. Glass, etc., is usually nonopaque. On the other hand even though there is a complete penetrating wound of the eye it does not necessarily follow that there is an interocular foreign body. It may not have entered the eye merely causing a laceration, or it may have passed through the eye into the orbit tissues. I do not believe in immediate enucleation of the eye even though extensively lacerated, unless there is a massive prolapse of vitreous. The necessary repairs should be made and the patient sent back to bed and observed for several days. If at that time it appears that the eye is lost then enucleation can be done. It sometimes happens that some hopeless looking eyes can be saved. There is practically no risk of a sympathetic ophthalmitis under 10 days, contrary to what you have been taught.

COMPLICATION FOLLOWING PENETRATING WOUNDS

Another complication following penetrating wounds of the eye is retinal detachment. The only way we can guard against this is having both eyes bandaged for 48 hours and keeping the patient quiet. If this happens, it can be repaired after the eye becomes quiet with a 50-50 chance of a good result. The postoperative medication we use is atropine and bichloride ointment in the injured eye—1500 units of tetanus antitoxin followed in 24 hours by 10 cc. sterile milk intermuscularly or 25-50 m. of typhoid vaccine intervenous. If there shows evidence of early infection sulfadiazine or sulfathiazol is given in the usual way. This has been found to be of value.

I have had in the past year, that is 1941, in this hospital 15 cases of penetrating wounds of the eyeball; the factor has been divided as follows: Steel, 6; aluminum, 1; nail, 2; jack knife blade, 1; cartridge shell, 1; glass, 3; tongs, 1; crochet needle, 1. Four of these required a subsequent enucleation, one still has a blind eye. Divided as follows: Steel, 2; aluminum, 1; nail, 1; jack knife, 1. The other ten have vision in the following percentage: Steel, 2 6/6. Steel (1) traumatic cataract which was removed, vision 6/6 with correcting lens. Cartridge shell (1) 6/6. Glass (3) 6/6. Tongs (1) 6/6. Crochet needle (1) 6/6. Nail (1) 6/6.

The following is a synopsis of the injury and what was done.

Case 1—S.S. Struck in O. D. with jacket of cartridge shell. Laceration through cornea. Prolapsed iris. Jacket curled up in anterior chamber. Incision made with keratome. Jacket removed. Iridectomy. Complete conjunctival flap. Vision 6/6.

Case 2—J. V. Struck with large piece of steel causing laceration of center of cornea O. D. Prolapse of iris—lens capsule ruptured. No interocular foreign body. Iridectomy. Cornea sutured. Conjuncval flap. Developed panophthalmitis. Enucleation.

Case 3—P. L. Struck in left eye with glass from light bulb. Laceration through conjunctiva but not completely through sclera. Sutured. Vision 6/6.

Case 4—V. C. Struck in right eye with piece of hot steel. Burn of cornea. Laceration through sclera in region of ciliary body with some prolapse of root of iris. Lens partially dislocated. Scleral wound sutured. Reinforced conjunctival flap. No complications. Vision 6/6.

Case 5—C. T. Struck in center of cornea O. D. with aluminum chip, which rested on anterior capsule. Large central laceration of cornea which closed. Foreign body removed with forceps, through keratome incision. Peripheral iridectomy. Complete conjunctival flap. Developed posterior synechia and panophthalmitis—enucleation.

Case 6—D. J. ran piece of tubing into right eye. Large crescent shape laceration through conjunctiva and sclera one-half cm. from limbus. Sclera exposed and sutured. Reinforced conjunctival flap. No complications. Vision 6/6.

Case 7—H. A. ran crochet hook into right eye. Linear laceration of upper half of cornea 3 mm. from limbus with prolapse of iris and some vitreous. Iridectomy. Removal prolapsed vitreous. Complete conjunctival flap. No complications. Vision 6/6.

Case 8—C. P. Struck in right eye with nail. Large laceration and hole in cornea from center to limbus with prolapse of vitreous (partial) and iris. Iridectomy. Cut off prolapse vitreous. Corneal suture. Complete conjunctival flap. Developed panophthalmitis. Enucleation.

Case 9—B. S. Struck in right eye with nail. Prolapse of iris—laceration of cornea in upper half 3 mm. from limbus. Iridectomy. Complete conjunctival flap. No complications. Some rust stains of cornea. Vision 6/6.

Case 10—T. McL. Struck in eye with knife blade. Large laceration through center of cornea through limbus with prolapse of iris and some vitreous. Lens ruptured. Cornea sutured. Iridectomy. Cut off prolapse vitreous. Complete conjunctival flap. Enucleation after two months due to panophthalmitis. Blade had penetrated posterior wall of globe.

Case 11—R. D. Piece of glass from window punctured left eye. Penetrating wound of left cornea at 9 o'clock near limbus with prolapse of iris. Iridectomy. Complete conjunctival flap. No complications. Vision 6/6.

Case 12—T. S. Struck in right eye by piece of steel sheeting. Large laceration in center of cornea. Lens opaque and pressing against cornea. Cornea sutured. Complete conjunctival flap. Eye quieted down but developed absolute glaucoma. Refused operation. Developed hernia of sclera. Eye blind. Eye might have been saved if operation for glaucoma had been performed.

Case 13—W. D. Struck in left eye with tongs. Conjunctiva lacerated for three quarters of area of globe down to sclera 3 mm. from limbus with retraction. All sclera exposed, no laceration. Conjunctiva sutured. No complications. Vision 6/7.5.

Case 14—P. D. Struck in O. D. with hot steel ring. Large burn and triangle flap laceration of cornea at 12 o'clock nearly through with multiple foreign bodies. Laceration of conjunctiva. Foreign bodies removed. Complete conjunctival flap. No complications. Vision 6/6.

Case 15—E. T. Piece from chisel struck him in left eye. Large splinter of steel in anterior chamber. Laceration through cornea off pupil. Unable to remove with magnet. Keratome incision made. Foreign body grasped with forceps and removed. Iridectomy. Complete conjunctival flap. Developed traumatic cataract from foreign body. Lens became swollen, developed secondary glaucoma. Linear extraction of cataract under conjunctival flap. With correction vision 6/6.

Thus we have 66 1/3 per cent of eyes saved with useful vision and 33 1/3 per cent of eyes lost of these 15 cases. In my opinion the high percentage of eyes that were saved which usually would be lost was due to an early diagnosis and to the acuity of our house staff and our visiting men together with early operative treatment. It was not so many years ago that any case of penetrating wounds of the eye meant enucleation, but today we can normally expect to save from 50 to 66 per cent of all these eyes.

SUMMARY

(1) Be suspicious of all bleeding into the bulbar conjunctiva, especially if progressive with a small elevated area of bleeding that you are dealing with a penetrating wound of the eyeball.

(2) X-ray all suspicious cases, but a negative X-ray does not mean that the eyeball has not been penetrated.

(3) Early repair of the penetrating wound and the removal of all interocular foreign bodies.

(4) Any irregularity of the iris or depth of the anterior chamber should be regarded as positive unless proved otherwise.

(5) When in doubt call consultation.

(6) Any staining of the cornea with either fluorescein or mercuochrome should warn you that you may be dealing with an interocular foreign body.

(7) Be suspicious of all photophobia (sensitive to light.)

1058 Rose Bldg.

Plastic Surgery of The Nose

The etiological types of nasal deformity are stated with a discussion of the selection of cases for operation. A brief description is made of the method of anesthesia, of surgical technique, and of postoperative care. Consideration is given to the question of when to do submucous resection in connection with the plastic procedure. A group of representative cases is shown by use of photographs and short case reports.—D. F. Weaver, M.D., Detroit; Jour. Mich. S.M.S., Vol. 41, No. 3, March, 1942.

Tuberculosis and the Non-Cooperative Patient

DAN MORSE, M.D.

THE reasons why individuals with tuberculosis refuse to start treatment or voluntarily terminate treatment before completion has been a somewhat neglected problem in the past because heretofore in most communities there has not been enough sanitorium beds and other treatment facilities to even accommodate those patients who want to get well and who would willingly follow medical advice. Witness the long waiting lists of many sanatoria. Recall the many tragedies of those who had the benefit of an early diagnosis, only to have their disease progress to a hopeless stage because, "No beds are available".

Recently more emphasis is being placed on the treatment of tuberculosis; more sanatoria are being built and more hospitals are being utilized, especially in regards to the employment of collapse therapy. What to do about those persons who refuse treatment and who insist on roaming around their neighborhood spreading the disease to others, is becoming more and more important. If the decline in the incidence of tuberculosis is to continue in the future, more consideration must be given to this subject.

THE PROBLEM

Why patients refuse to accept medical advice and what steps we might take in the future to promote cooperation is the reason for a statistical study of 150 cases.

All of these cases have been examined at the Columbus Tuberculosis Dispensary — most of them within the past five years. These are 150 consecutive cases which fulfilled the following prerequisites: first, the individual concerned must have refused to follow some medical advice given by a physician and second, the patient must have had a chance to get well at the time the advice was given as evidenced by physical findings and X-ray examination. The advice given and refused was considered correct according to our knowledge of the modern treatment of tuberculosis and if followed, was thought to be an important factor towards anticipated recovery.

RESULTS

The average length of time these cases were under our observation was two years and ten months. The shortest observed time was one week, that of a patient who died from a hemorrhage one week after diagnosis was made—after refusing all treatment, including bed rest. The longest observed case was over a period of 27 years.

The Author

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Occurrence of Tuberculosis According to Sex, Race, and Age at the Columbus Tuberculosis Dispensary (1935 to 1940)

Grouping:	Non-Cooperative: (150 Cases) Number:	Per Cent:	All Cases of Tuberculosis in The 5 Years. Per Cent
Male	73	48.7	58.0
Female	77	51.3	42.00
White	95	63.3	63.0
Colored	55	36.6	37.0
AGES			
Under 15 years	2	1.3	2.6
15—25 "	37	24.6	28.0
25—35 "	50	33.3	28.8
35—45 "	31	20.6	22.2
Over 45 "	30	20.0	18.1

In comparing the non-cooperative group with all cases of pulmonary tuberculosis observed in the Dispensary in the past five years we see that race has little apparent influence in causing non-cooperation. The percentage of females is higher in the non-cooperative group than in all cases of tuberculosis. In the non-cooperative group there are proportionately more included in the middle aged brackets (25-35 years), than in all cases of tuberculosis. The middle aged patient is apt to be settled in his ways; having additional family and financial obligations, and is less likely to sacrifice the time necessary for treatment.

Types of Treatment Refused at Columbus Tuberculosis Dispensary

Bed Rest	108
Sanatorium	81
Left Sanatorium Against Advice	63
Pneumothorax	37
Phrenic Nerve Operation	3
Thoracoplasty	8

The above is the list of treatments that were refused. Some patients refused all advice given,

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From the medical service Columbus Tuberculosis Dispensary. Dr. C. H. Benson, Medical Director.

Submitted March 9, 1941.

some refused certain portions of advice, and others refused at first but later cooperated.

Prognosis of 150 Cases

		Number:	Per Cent:	
Far Advanced		49	32.6	
Moderately Advanced		78	52.0	
Minimal		23	15.4	
MIN/O	22			
M A/O	58			
F A/O	30			
MIN/MIN	6			88.0 Good Prognosis
M A/MIN	16			
F A/MIN	15			20.0 Fair Prognosis
F A/M A	3			2.0 Poor Prognosis

The above is the prognosis of these cases when treatment was refused. The lower section of the chart shows the amount of disease in each lung as demonstrated by X-ray.* Unilateral cases and those bilateral with not more than minimal disease in each lung, (MIN/MIN) are considered "Good Prognosis." "Mostly Unilateral," cases (MA/MIN and FA/MIN) are considered "Fair Prognosis." Only three cases, (2 per cent) had a, "Poor Prognosis," but even these were considered to have had a chance for recovery, if properly treated.

Results of Refusing Treatment

Result:	Number:	Per Cent:	Remarks:
Well	3	2.0	1 took pneumothorax later
Improved	7	4.6	1 took thoracoplasty later
Quiescent	11	7.3	6 took pneumothorax later
Worse	20	13.3	Lost track of 2
Hopeless	23	15.3	Lost track of 2
Dead	86	57.3	

At this date 57.3 per cent of the individuals under observation are already dead; 86 per cent are classified as either hopeless, worse, or dead.

Reasons for Refusing Treatment—150 Cases

Reasons Given	Number
Feels Well	96
Treatment by Others	56
Sex Maladjustment	34
Family Doctor Not Encourage	29
Long Sanatorium Waiting List	21
Fear of Sanatorium	16
Patient Didn't Understand	16
Patient Didn't Believe Diagnosis	15
Overcrowded Sanatorium	15
Would Beak Up Family	14
Fear of Surgery	11
Loss of Income	11
Liquor	9
Too Much Free Care	8
Religious Prejudices	7

Some Other Reasons

Drugs
Feeble Minded
Stubborn
Self Treatment
Compensation Neurosis
Went Out West
Dislike Attitude of Doctor
Homesick
Hobo Spirit
General Discouragement
Wanted to Die

Only 6.6 per cent can be considered as improved or well without the advised treatment. Several of the quiescent cases have irreparable post-tuberculosis bronchiectasis. Of the well and improved cases eight of the ten at first refused, then later accepted treatment. There are other disastrous results of lack of treatment that can not be accurately measured but nevertheless exist; namely, infection of others and longer illnesses.

In all instances whenever possible the repentant patient himself was asked by the visiting nurse or the Dispensary physician what could have been done to have influenced him to submit to treatment. In many cases this question was asked shortly before death when the patient himself was aware that nothing then could be done for him. Almost without exception those asked frankly admitted that nothing short of force would have caused them to accept treatment.

What Could Have Been Done
(Suggestions by patients themselves)

Suggestion:	Number:
Legal Force	99
More Health Information	12
More Attractive Surroundings in Sanatoria	8
Less Waiting Time for Entrance into Sanatoria	6
Closer Cooperation by Private Physicians	6
Adequate Provisions for Dependents	3
Total Patients giving suggestions	134

RECOMMENDATIONS

Every case in itself is unique, needing individual attention and study. Undoubtedly before tuberculosis can ever be delegated to an obscure position in our public health statistics some form of legislation is necessary—to at least force isolation if not actually to compel acceptance of treatment. More extensive health education is necessary to make the public more cognizant of the insidious character of tuberculosis and the treatment methods most likely to be successful. More sanatoria should be built and the present ones should be made more attractive whenever possible.

CONCLUSIONS

A study of the social histories of 150 cases of tuberculosis was made in an effort to discover why they refused to accept medical advice and what measures might be taken to reduce the incidence of the non-cooperative patient.

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*This method of denoting X-ray findings—each lung considered separately—was suggested by Dr. David Salkin, Hopemount Sanitarium, Hopemount, West Virginia, 1936.

Injection Anesthesia

ROBERT D. MYERS, M.D.

THE two most efficient and widely used drugs for block and infiltration anesthesia are procaine hydrochloride and Lilly's metycaine. Procaine is the most widely used, and seems to be less irritating to the tissues in making the initial wheals and less toxic; metycaine lasting a little longer in spinal anesthesia and taking effect more promptly in the sacral block.

The usual pre-operative preparation of an adult consist in the administration of a barbiturate as nembutal grains 1-111 combined with 1/32-1/24 of dilaudid or 1/6-¼ grains of morphine plus 1/100-1/150 grains of atropine 45 minutes before the administration of the anesthetic. The administration of atropine is important, especially, in those cases in which supplemental anesthesia either of intravenous pentothal sodium or nitrous oxide is anticipated, not only for its drying effect of the mucous membranes, and as a respiratory stimulant, but also for its action in preventing the reflex coronary vasoconstriction resulting in ventricular fibrillation according to recent studies.

SACRAL BLOCK ANESTHESIA

Sacral block anesthesia, for operations in the perineal region, is superior in many ways to any other form of anesthesia. A 1 per cent solution of procaine in normal saline, to which is added a small amount of 1-1000 adrenalin or neo-synephrin for their peripheral vasoconstrictor effect, is used. Under sacral block the perineal muscles are well relaxed, permitting ample exposure for all types of anal and vaginal operations. The patient may be placed in any position desired by the surgeon immediately upon completion of the block; nausea and vomiting, during the operation, are rare; it is the longest lasting of the various block anesthetics; there is no distortion of the operative field, as occurs in infiltration anesthesia; it wears off slowly, permitting the administration of morphine before sensation returns, making the postoperative course more comfortable to the patient; the toxic effects of general anesthesia are reduced; there is seldom any postoperative nausea and vomiting; postoperative headache is eliminated; catheterization of the patient is not nesessary as frequently as in spinal anesthesia; the contributing factor of anesthesia to pneumonia is eliminated; shock is rarely encountered; electrical apparatus may be used freely and safely; fluids, by mouth, may be given freely, postoperative, without untoward effect.

Sacral block anesthesia, for prostatic resection, whether by the urethral or perineal method, surpasses all forms of anesthesia, including, spinal, in safety and efficiency. Many of these patients are arteriosclerotic, with histories of coronary disease, apoplexy, etc. Since the procaine, in performing a sacral block, is all injected below the dural sac, it cannot come in contact with the sympathetic nerve fibres of the abdominal and thoracic sympathetic chain, therefore, no blocking of the abdominal vasomotor nerves occurs, hence, it is impossible to get any fall in blood pressure from this factor, a point which is very important in these patients. An anesthetic must also be chosen which is not contributory to pneumonia. Perineorraphies, vaginal and cervical operations, hemorrhoidectomies, operations within the urinary bladder by the urethral approach, such as vesical calculi, bladder tumors, Hunter ulcers, etc., may all be done satisfactorily under sacral block anesthesia.

The Author

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SPINAL ANESTHESIA

In spinal anesthesia either procaine or metycaine are used. The preoperative preparation is essentially the same as for sacral block. A vasoconstrictor drug, perferably ephedrine, should be administered in the higher spinals, as it outlasts the action of the procaine, but it must be given long enough before the injection of the procaine into the spinal fluid to exert its peripheral action and before the procaine blocks off the abdominal vasomotor nerve. The dose of ephedrine varies from 25 to 100 mg. according to the judgment of the anesthetist, and is incorporated in the procaine solution used to anesthetize the tissues at the interspace selected to introduce the spinal needle. It is exerting its effect by the time the needle has been introduced into the dural sac, and the desired dose of procaine has been mixed with the spinal fluid. The size of the dose of procaine depends upon the height it is desired that the anesthesia shall extend, and the length of time it must last, and varies from 50 to 100 mg. in perineal, hip and leg operations to 150 and 200 mg. in abdominal operations. Larger doses

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Submitted February 16, 1942.

than these are seldom used except in the continuous spinal anesthetic in which the doses are given 100 mg. at each injection, repeating the dose of 100 mg. when the previous dose wears off. The proper needle as to size and length, the position of the patient before and immediately after the spinal injection, gentleness on the part of the surgeon in handling the tissues, and an attempt on the part of the anesthetist to obtain an errorless technique of administration are essential factors to successful spinal anesthesia.

Spinal anesthesia offers advantages for many types of operations impossible to obtain with any other anesthetic. For operations involving the kidney, its advantages both to the surgeon and the patient, are unsurpassed. The muscular relaxation is perfect, with a quiet and uniform depth of respiration, thereby eliminating the necessity for forcibly packing and spreading the soft parts, therefore, the work of the surgeon is greatly facilitated, for he can work more quickly, with greater ease, and with less trauma. In cases of ruptured viscera such as gangrenous appendix, tubal or abdominal pregnancy, gunshot or other penetrating abdominal wounds, the surgical procedure may be carried out with a minimum of dissemination of infected material. In cesarean section, besides the above advantages, there are less postoperative lung complications, less postoperative infection and temperature due to the fact that the patient's resistance is not lowered in injection anesthesia; the bleeding is less and more easily controlled as the uterus responds readily to the ergatrate and pituitrin. The fetus is not affected by spinal anesthesia. The same advantages apply to inguinal and scrotal herniae, suprapubic prostatectomy and cystotomy, many hysterectomies and to operations on the hip, thigh, legs and feet.

THE ABDOMINAL BLOCK

The abdominal block of the anterior abdominal wall, using one-half to 1 per cent procaine, is beneficial, especially in debilitated subjects and for prolonged operations within the abdomen, as, by this procedure, the amount of general anesthesia is markedly lessened.

Brachial plexus and cervical plexus blocks are, at the present time, the least used and the least satisfactory of the block anesthetics due to the fact that it is impossible to obtain perfect anesthesia in some cases, thereby influencing the anesthetist to choose instead intravenous anesthesia, cyclopropane, or nitrous oxide oxygen ether.

Infiltration anesthesia by using 1 per cent or 2 per cent procaine solution injecting with different length needles into the tissues surrounding the part or through which the sensory nerves pass to the part to be operated is applicable to tumors of the skin and subcutaneous tissues, fractures, finger and toe operations, circumcisions, etc.

The selection of the proper anesthetic to suit the type of operation contemplated is important, and injection anesthesia has a most important place in anesthesiology.

21 E. State St.

Facts About Twins

Dr. K. J. Holzinger, a statistician of the University of Chicago, has worked out the relative influences of heredity and environment on a number of characteristics in two-egg twins in terms of percentages. These percentages also apply to ordinary brothers and sisters of more or less the same age. Here they are: Physical characteristics are determined about 80 per cent by heredity and 20 per cent by environment; intelligence is determined about 75 per cent by heredity and 25 per cent by environment; educational achievement is determined about 50 per cent by heredity and 50 per cent by environment; finally, motor activity and temperament are determined about 30 per cent by heredity and 70 per cent by environment.

The life stories of one-egg twins reared apart since early childhood are most interesting. We are told, for instance, that Edwin and Fred, a pair of one-egg twins who were separated early in life, did not meet until they were 25 years of age, or even know of each other's existence. Upon comparing their experiences, it was revealed that they had both received much the same education; both were electricians; both had been married the same year to women of about the same age; and both had a baby son.

We may end this article by naming some of the famous and near-famous twins living today. This list is headed by August and Jean Picard, stratosphere fliers who from time to time have made the headlines with their exploits. Among the less famous twins are William and Chester Murphy, tennis players; Blaine and Wayne Rideout, middle-distance runners; Arthur and Alfred Gueppe, football players; the Bigelow twins, hockey players; Virginia and Mary Hopkins, swimmers; the Driscoll twins, one of whom is an oarsman at Yale, and the other a track athlete; and the Hogue twins, boxers. In the show business are Madeleine and Marion Fairbank, musical-comedy stars, and the Stroud twins, Clarence and Claude, radio entertainers.

On the whole, the majority of twins, like the majority of singletons, tend to settle down quietly in their communities and lead lives which do not place them in the glare of fame.—Peter Hampton, M.D., Winnipeg, Canada; Medical Record, Vol. 155, No. 5, March 4, 1942.

Medical Men as Pioneers in Non-Medical Fields

LINDEN F. EDWARDS, PH.D.

IT is well known that many physicians have distinguished themselves in other fields than those belonging strictly to their profession, as for example, Oliver Wendell Holmes in literature, Royal S. Copeland in politics, Georges Clemenceau in statesmanship, Ray Lyman Wilbur in education, David Livingstone in exploration, John Locke in philosophy, Petrus Hispanus (Pope John XXI) in religion, Christopher Wren in architecture, Sir Francis Seymour Haden in art, Fritz Kreisler in music, Galileo in mathematics and physics, Linnaeus in natural history and Joseph Leidy in paleontology. While collecting data bearing on the subject of contributions of physicians to both medical and non-medical fields the writer has been repeatedly impressed not only with the versatility displayed in the ranks of this profession but particularly with the numerous instances of priority accredited to physicians for pursuits in other fields.

Claims of priority or the honor of being "the first" are apt to invite criticism since priority in many instances is not an easy matter to determine, due either to the lack of authentic records or to the existence of counter claims. As Kane[7] points out "the courts alone have had to consider thousands of such claims" and moreover that "historians often disagree as to the time, place and participants of events. For example, one historian may place the date of an invention at the time when the idea was conceived; another when the first model was made, another, when the patent was applied for or even another at the time when the patent was granted."

In the present paper the sources of information relied upon were established ones, namely, biographic sketches as well as articles and books bearing on the subject. A complete list of the sources from which the material was obtained is too comprehensive to include in the appended bibliography due to limitation of space.

I. ARTS AND SCIENCES

A. Belles-Lettres.—A surprisingly large number of the foremost authors and poets, both past and present, either started on the medical road or had experience in practice. Some of them gained distinction in both medicine and literature, as Doctors Oliver Wendell Holmes and Silas Weir Mitchell, but most of them attained such great fame as authors that their connection with the profession of medicine has been almost forgotten or has never been widely known. In the latter group may be mentioned such familiar names as Oliver Goldsmith, John Keats, Samuel Coleridge, Joseph Rodman Drake, Goethe, Schiller, Hendrick Ibsen, Mark Akenside, Robert Bridges, Rabelais, Saint Luke the Apostle, Francis Brett Young, Somerset Maugham, Joseph Hergesheimer, A. S. M. Hutchinson ("If Winter Comes"), Eugene Sue ("The Wandering Jew"), Cervantes ("Don Quixote"), Richard A. Blackmore ("Lorna Doone"), Sir Arthur Conan Doyle ("Adventures of Sherlock Holmes"), Warwick Deeping ("Sorrell and Son") and John McCrae ("In Flanders Field"). It should also be mentioned here that the authors of those familiar patriotic poems set to music and entitled "Yankee Doodle" (Richard Shuckburg) and "The Star Spangled Banner" (Francis Scott Key) were poets with a medical background. Few physicians doubtless are aware that Noah Webster, the famous lexicographer, was also a "practitioner of physick" and has been accredited as the first epidemiologist.

The Author

● Dr. Edwards, Columbus, Ohio, professor of Anatomy, Ohio State University; member American Association of Anatomists, Sigma Xi, and Ohio Academy of Science.

B. Journalism.—Publication of a newspaper or a magazine seems a far cry from the practice of medicine and yet Dr. Theophrastus Renaudot is honored as being the originator of newspapers (La Gazette-1631) and Dr. Gilbert Holland as the founder and first editor of Scribner's magazine. We have heard a great deal about freedom of the press in Europe, or rather lack of it, in recent years. It is of interest to note that Johann Friedrich Struensee, physician-in-ordinary to the Danish King Christian VII, eventually ruled Denmark and was the first ruler to establish freedom of the press in Europe (1770-1772). "John Bull," the symbolic caricature of Great Britain, is familiar to every one and yet few people know that Doctor John Arbuthnot was its originator.

C. Natural Sciences.—It has been well established that Greece was the cradle of science including medicine and that the early Greek philosopher-scientists were for the most part physicians. Moreover, physicians in later years have made notable contributions to the various branches of science not strictly related to medicine, chief among which are the following:

Andreas Libavius was the author of the first formal text-book in chemistry; Benjamin Rush was not only the first American author of a text-book in chemistry but was also the first professor of chemistry in America; William Cullen gave the first chemistry lectures in English rather than in Latin as was the prevailing custom (Glasgow, Scotland); Robert Recorde was the first English writer on arithmetic, algebra and geometry and is said to have introduced the plus, minus and equal signs; a Doctor Fernel was the first to accurately measure a meredian; Joseph Black not only first established the doctrine of latent and specific heat but discovered carbonic acid gas; Robert Boyle first established the relation of the volume of a gas to its pressure (Boyle's law); Aloiso Galvani discovered current electricity; Thomas Johann Seebeck discovered thermo-electricity; Jacques Arsene D'Arsonval discovered diathermy and liquid air; William C. Wells made the first scientific study of the formation of dew; William Gilbert was the first to advance the conception that the earth is a huge magnet and the first to use the term "magnetic pole"; John Locke was the first person to keep a regular journal of the weather using a barometer, thermometer and hygrometer.

Henry Draper was the earliest celestial photographer and discovered oxygen on the sun; Nathaniel Ames, Jr., made the first almanac in America and Samuel Stearns made the calculations for the first nautical almanac printed in America; Girolamo Fracastorius was the first person to recognize the origin and nature of fossils; John Woodard created the first geological museum; Stensen was the first person to describe the significance of geological strata; Martin Lister was the first person to construct maps of geological strata; Johann A. Schoepf was the author of the first systematic work on American geology; Ebenezer Bruce founded the first American mineralogical journal; Ebenezer Emmons founded the Association of American Geologists; David Hossack made the first collection of minerals in America; James Eights made the first geological observations in the anarctica; Benjamin Silliman made the first geological exploration in America; Samuel L. Mitchell discovered the first fossil horse; John Evans discovered Bad-lands fossils and Hiram A. Prout gave the first description of these fossils; Joseph Leidy founded American Vertebrate paleontology; Andrea Cesalpino was the first person to recognize sex in flowers; Jared Eliot made a number of contributions to the science of Agriculture including his introduction of the white mulberry together with the silkworm in America and his publishing of the first agriculture treatise in this country; Charles Caldwell was the first person in America to conduct successfully experiments of artificially stimulating the growth of plants, especially flowers, and lastly Georg Agricola was author of the first treatise devoted to mining. In concluding this very extensive list of natural scientists it should be emphasized again that each possessed a medical degree or had worked toward that end.

D. Education.—A large number of physicians have distinguished themselves in the field of general education as well as in that of the allied sciences. Space will permit mention of only a few cases of priority in this category. Thus Doctor John D. Fisher founded the first school for the blind (Boston, Mass.-1829); a Doctor Cogswell founded the first school for the deaf (Hartford, Conn.-1817); Doctors Chapin A. Harris and Horace H. Hayden founded the first Dental College—still extant (Baltimore, Md.-1840); Doctor John Marsh, also known as Don Juan Maria, opened the first school in Minnesota; Doctor Samuel H. Lyle was author of the first compulsory school law ever placed on the statute books of any southern state (Tennessee General Assembly-1897); Doctor David Ramsey was the first American to write a history of the American Revolution (1790) and a Doctor Zamenhoff of Russia was the first to propose Esperanto as a universal language (1887).

II. POLITICS AND STATESMANSHIP

Numerous physicians have held positions of honor and trust in the world of politics and statesmanship. Browning,[3,4] who has made an extensive survey of this subject, points out there is a rapidly diminishing ratio of physicians in politics since the pioneer stage of this country and that "the curve presages extinction of this genus." Surveying the field as a whole the number of physicians who have been prominent in civil or political affairs is legion and the subject is more worthy of comment than can be devoted to it in this paper. The following instances of physicians who have the honor of being "the first" in various aspects of politics should be of interest. Thus Doctor Charles Robinson was the first governor of Kansas, John Winthrop, Jr. that of Connecticut, William Wyatt Bibb of Alabama, Joshua Clayton of Delaware, Edward Tiffin of Ohio and Arthur St. Clair that of the Northwest Territory. It would be interesting to know how many Ohio physicians are aware that William Henry Harrison, the first President of the United States elected from Ohio, studied medicine. Doctor Thomas Wynne, who accompanied William Penn on the latter's first voyage to America, was chosen President of the first provincial assembly of Pennsylvania and Doctor William Thornton was the first person to be appointed Superintendent of the U.S. patent office.

Physicians have also figured prominently in patriotic organizations and celebrations as evidenced by the following: Doctor David Ramsay delivered the first July 4th oration ever delivered (July 4, 1778); Doctor Solomon Drown delivered the first oration commemorating the first settlement in Ohio (Marietta-Apr. 7, 1889); Doctor B. J. Cigrand was the first Secretary of the American Flag Day Association of Chicago, Illinois, and its first President when it became national in scope (1896), at which time flag day was permanently fixed on June 14th; Doctor B. F. Stephenson organized the Grand Army of the Republic (Decatur, Ill.-Apr. 6, 1866); Doctor Benjamin Rush was chosen the first Secretary of the first Abolition Society organized in the United States (1775) and Doctor Alexander Campbell was the first Vice President of the first Antislavery Society in Ohio (1835).

III. EXPLORATION

Many of the most renowned explorers were physicians. To account for this field of interest various reasons may be offered. Thus many began as navy or army surgeons, some were globe trotters, others missionaries, others were collectors, some were interested in geology or ethnology as hobbies, others were adventurers and many accompanied scientific expeditions to guard his fellows against disease, exposure and injury as well as to make scientific observations (Browning[2]). As examples of physicians who are accredited with being "the first" in this field of endeavor the following are cited: It is common knowledge that Robert E. Peary discovered the north pole (Apr. 6, 1909) and that David Livingstone was the first explorer of Africa—both having been physicians. Of not such common knowledge are the facts that Doctor John Brickell was the first recognized explorer of western North Carolina (1730), Doctor Thomas Walker that of Kentucky (1750—19 years prior to Daniel Boone), Doctor John McLoughlin that of Oregon, Doctor Elisha K. Kane of the Philippines and Walter Russell and Anthony Bagnall—"doctors of physicke"—of the Chesapeake Bay region (1608). The first person to ascend Pike's Peak was Doctor Edwin James and the first to scale Mount Blanc was Doctor Michael G. Paccard. Incidentally the first Americans to ascend the latter mountain were Doctors William Howard and Jeremiah Van Rennselaer and their narratives of this ascent were the first printed descriptions of the ascent of an alpine snow mountain. While on the subject of mountains it should be pointed out here that the first person to cross the Alleghenies in a carriage was Doctor John D. Schoeff. Speaking of modes of travel Doctor Marcus Whitman opened the first wagon trail across the continent while Doctor H. N. Jackson was the first non-professional driver to make a successful transcontinental motor trip across the United States (from San Francisco to New York in 63 days in his Winton). The Yosemite Valley was discovered by Doctor L. H. Bunnell and lastly it is of interest to note that the first person to write a letter from America was Diego Alvarez Chanca, physician-in-ordinary to King Ferdinand and Queen Isabella, who accompanied Columbus on his second expedition to the Americas and mailed the letter from the Port of Isabella, San Domingo, Feb. 2, 1494. This letter is now in the possession of the library of Seville.

IV. INVENTIONS

That the ingenious mind of the physician is capable of devising gadgets for use outside the realm of medicine is quite evident from the following rather imposing list of inventor-physicians and their inventions. Doctor Zachariah Allen constructed the first central heating system; he devised the method of transmitting power by means of a leather belt in place of the gear or cog wheel; he invented a cloth napping machine, a dressing and finishing machine, a machine for spinning wool and the centrifugal ball governor on the steam engine. Furthermore he originated a method for testing oils and he devised the system of mutual fire insurance. Doctor Joseph Buchanan invented a musical instrument by means of which tones were drawn from glasses of different chemical composition. He also invented a capillary steam engine and is accredited as having built the first airship in this country. Incidentally Henry W. Walden invented the monoplane which was test flown at Mineola, Long Island (Dec. 1909).

Doctor Richard J. Gatling invented not only the battery gun which still bears his name but also the screw propelling wheel for ocean steamers, a seed sowing machine, a double action hemp breaker and a motor driven plow. Doctor Rufus H. Gilbert not only invented the elevated railroad but was president of the company that built the first road of the kind in New York.

Doctor Joseph I. Guillotin invented the guillotine used so successfully during the French Revolution, his original purpose being to reform the method of capital punishment, which was hanging for the "commons" and beheading with the sword for the aristocrats. Sir Francis Seymour Hayden, brother-in-law of Whistler, the artist, and himself considered the greatest landscape artist of the century, invented a papier-mache coffin.

Doctor St. Julien Ravenel devised the first torpedo out of a discarded locomotive boiler which successfully attacked the Northern battleship "New Ironsides" (1863). Sir James Syme, the noted Scottish surgeon, invented a solvent of India rubber applicable for rainproofing certain fabrics. Macintosh, a Glasgow manufacturer, seized upon the discovery and made raincoats known as the macintosh. Max von Pettenkofer was the first person to work out a method for restoring old oil paintings.

In addition to the above the following inventions were the products of the ingenious mind of physicians: the telegraphic system of transmitting fire alarms (William F. Channing); a machine for unwinding the fibers from the silk cocoon (Thomas H. Chivers); the galvonometer (Jacques D'Arsonval); the miner's lamp (Sir Humphry Davy); the gyroscope (Jean Leon Foucoult); the first mechanical refrigerating machine (John Gorrie); the blow pipe (Robert Hare); a machine for making pins (John I. Howe); an envelope folding machine (Russell L. Hawes); the telephone (Alexander Graham Bell); the Welsbach gas mantel (Karl F. A. von Welsbach); the first electro-chronograph electric clock operated via telegraph (John Locke—professor of chemistry at the Medical College of Ohio); an instrument for measuring crystals (William H. Wolloston).

V. BUSINESS

The following examples of priority of physicians in the business world are cited merely to further illustrate their versatility. James Baker was originator of the present well known Walter Baker and Co., manufacturers of chocolate; C. F. Bradway was the first president of the Abingdon Sanitary Manufacturing Company, Abingdon, Illinois, "one of the largest manufacturers of vitrous china in the world"; Daniel Coxe established a pottery at Burlington, N. J. (1680), the first in the United States; Francis Julius LeMoyne erected the first crematory in America and P. S. Chappell with William Davison were the first to manufacture fertilizer for agriculture purposes (1850). Abraham Gesner discovered kerosene oil by obtaining it from shale; Samuel M. Kier started the first oil refinery; the Nathan Webbs, junior and senior, built the first castor oil mill west of the Allegheny Mountains (Dresden, Ohio). A Doctor Otto of Bethlehem, Pa., was the first person to produce cotton oil.

VI. ART AND ARCHITECTURE

Many distinguished physicians have exhibited considerable artistic talent, notably, Richard Bright, Sir Charles Bell, Martin Lister, Thomas Hodgkin, Jean-Martin Charcot, Ramon Y Cajal, Jacob Henle, Joseph Leidy and William His. The first American wood engraver was Doctor Alexander Anderson. Doctor Olaf Rudbeck, Swedish physician (1630-1702), was one of the most versatile of men. At the University of Upsula, where he instructed in botany, astronomy, medicine, mechanics, chemistry, mathematics, music, drawing and architecture, he erected several buildings serving as architect and builder. In addition he constructed water works and provided the Swedish fleet with compasses which he constructed himself. It is of interest to note that Doctor William Thornton was the designer of our Capitol Building, Washington, D.C. Finally, it should be pointed out that the first physician of whom we have record, namely, Imhotep (3000 B.C.) in addition to being sage, scribe, vizier and chief ritualist was also an architect and is said to have designed and supervised the building of the famous "step pyramid" of Sakkara, Egypt.

After perusing the above list of accomplishments of physicians in other pursuits the question undoubtedly arises as to the status of these men in the domain of medicine. Attempts on the part of the writer to ascertain the answer to this question met with failure in some cases. A considerable number, whose names are familiar, were successful practitioners and who followed some "oblique pursuit" for needed relaxation or as a hobby; some had experience in practice but were laggard followers of their calling; others early deserted practice for such reasons as desire for fame or more lucrative returns while still others doubtless merely "read medicine" under a preceptor or enrolled in a medical school for a time and never obtained a license to practice. In the majority of instances, however, they were first and foremost medical men regardless of fame or attainment in other fields. Moreover, they should not be judged by twentieth century standards for their apparent overinterest in nonmedical pursuits. Most of these men practiced medicine in the more leisurely horse-and-buggy age when medicine was on a less scientific basis than it is today. As Miller[9] points out some of them composed poetry between visits as they drove or walked. In the present age the physician who rides in his car gets there too rapidly even if the stress of life did not make his mood decidedly anti-poetic.

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Coarctation of the Aorta Associated With Mycotic Aneurysm

Case Record Presenting Clinical Problems

SIMON KOLETSKY, M.D.

THE patient, a colored male, 38 years of age, was admitted to University Hospitals on December 1, 1941, with a complaint of expectoration of blood for the past two days. He had exertional dyspnea, orthopnea and chest pain for the past five years. Two months before admission, following the removal of six teeth under anesthesia, he began to have chills, fever and malaise. Three weeks ago he developed left-sided chest pain and cough, productive of thick white sputum. For the past two days the sputum contained large amounts of bright red blood.

On physical examination, the temperature was 38, the pulse 108, respirations 28, blood pressure in the right arm 150 systolic and 90 diastolic and in the left arm, 145 systolic and 85 diastolic. In both axillae there were large, palpable, pulsating and tortuous lateral thoracic arteries. The intercostal arteries were also palpable. The heart showed increased precordial activity. Laboratory examination revealed a urine with 3 plus albumin, 4 plus benzidine and numerous red and white cells. The white blood cell count was 25,000 with 80 per cent polymorphonuclear leucocytes; the red blood cell count was 2.9 M. with hemoglobin 58 per cent. The sputum was negative for acid-fast organisms on two occasions. The B.U.N. was 79.5 mg./100 cc. X-ray of the chest showed a dense homogeneous shadow in the left upper lung field, notching of the ribs, and congenital abnormalities in development of the vertebral bodies.

During his hospital course the patient ran a remittent fever ranging from 37.5 to 39.5°. On the fourth hospital day there was a hemoptysis of about 100 cc., following which respirations suddenly became gasping and the patient died. The final clinical diagnoses were: coarctation of the aorta; pulmonary tuberculosis; tuberculosis of the kidneys and secondary anemia.

At autopsy (7630), the diagnoses were: coarctation of first portion of descending aorta; mycotic aneurysm or aorta just beyond the coarctation with rupture and massive hemorrhage into upper lobe of left lung and bronchi, hypertrophy of the coronary, intercostal, internal mammary, epigastric and lateral thoracic arteries; acute and chronic passive hyperemia of lungs; passive hyperemia of viscera; embolism of the abdominal aorta; recent infarcts of spleen; acute diffuse glomerulonephritis with acute interstitial nephritis, and scoliosis. Culture of the heart's blood yielded a hemolytic staphylococcus albus.

The stenosis of the aorta was situated 5 mm. distal to the ductus arteriosus which was completely obliterated. Just beyond the site of coarctation, there was a saccular aneurysm of the aorta measuring 3 cm. in diameter. The edges, as well as the inner wall of the sac, were covered with large, friable, grayish-red vegetations. The wall of the aneurysm was ruptured and there was massive hemorrhage into the upper lobe of the left lung, to which the wall of the aneurysm was adherent. Further section of this lobe showed a large laminated blood clot, 5 cm. in diameter, immediately adjacent to the aneurysmal wall of the aorta with marked compression of the surrounding lung.

Microscopic sections of the wall of the aneurysm showed marked thinning and interruption of the elastica of the aorta. All coats of the aorta both in the aneurysm and adjacent to it, revealed edema, hemorrhage, and infiltration of polymorphonuclear leucocytes, especially the medial layer. The vegetations were composed of masses of necrotic polymorphonuclear leucocytes and fibrin and there were large colonies of bacteria. The latter were gram positive diplococci. In some places the vegetative lesions showed organization at their base.

COMMENT

The aneurysm of the aorta was of mycotic origin. This is indicated by the inflammatory change in the aorta with exudation of numerous polymorphonuclear leucocytes as well as colonies of bacteria. The vegetations attached to the aneurysm served as a source of embolism, as found in the distal aorta and in the spleen. Death was due to rupture of the aneurysm into the lung with massive hemorrhage. This is an unusual cause of death in coarctation of the aorta.

The location of the aneurysm distal to the site of stenosis and the source of the inflammation are not explained. The lesion of the media indicates that the aneurysm probably resulted from tiny bacterial emboli in the vasa vasorum leading to medial destruction, aneurysm formation and subsequent mural thrombosis. This is probably the case rather than intimal formation of an infected thrombus.

From the Institute of Pathology, Western Reserve University and University Hospitals, Cleveland, Ohio.

This is the ninth of a series of "Case Records Presenting Clinical Problems," selected by Dr. H. T. Karsner from the Clinical Pathological Conferences of the Institute of Pathology, Western Reserve University and University Hospitals.

Treatment of Hypertension

It has been debated that patients with hypertension are harmed by ever having had their blood pressure taken and the dangers of informing a patient of the presence of hypertension have been stressed. It is granted that an occasional patient with a highly unstable nervous system may be frightened by his vision of a stroke or some other calamity discussed by the medical educators of the laity. The course of management of hypertension should be determined by the degree of elevation of blood pressure, an ordinary clinical analysis of the patient and a little common sense.—Maxwell G. Berry, M.D., Kansas City, Mo.; Jour. Mo. S.M.A., Vol. 39, No. 3, March, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

AS long ago as 1865 Villemin successfully passed the "virus" of tuberculosis from one animal to another. Twelve years later (and five years before Koch's discovery of the tubercle bacillus) von Tappeiner caused dogs to develop tuberculosis by allowing them to inhale sputum from a consumptive patient. While direct lip contact is today considered the most potent means of transferring tubercle bacilli from person to person, knowledge as to the relative dangers of indirect contact with tuberculous lungs and their secretions is still incomplete. Three recently published papers give evidence of this while, at the same time, they sharpen our perception of the manner in which bacilli get from host to victim.

TUBERCLE BACILLI ON BOOKS AND GARMENTS

Books read by consumptives probably are occasionally contaminated by sputum in the form of droplets expelled during coughing or speaking as the book is closely held to the face and at a level that any droplets expelled may readily be deposited upon the paper. Also, they may be contaminated by licking the thumb or finger when turning the pages. Transmission of infection to a second reader appears most likely to occur when the recipient with moist thumb or finger handles the contaminated page, supposedly harboring the bacilli.

There is a general agreement that large portions of the bacilli deposited upon the book pages become dry and non-viable after a short period of time. Kenwood and Dowe exposed papers to coughing patients and dried them for one month, after which the washings from the paper surfaces were inoculated into guinea pigs of which not a single animal developed tuberculosis. Other experiments of this kind point to the conclusion that while the risk of infection from books is not to be belittled, the possibility of transmission from such channels is extremely small.

The present authors permitted certain patients with advanced pulmonary tuberculosis, with uncontrollable cough and with sputum of Gaffky 6 to 8, to handle books as carelessly as possible. They coughed on the marked pages, and wet their thumbs with saliva when turning these pages. Scrapings later derived from the marked pages were collected and suspended in physiological salt solution. Tuberculin negative guinea pigs were inoculated with this solution. Three of the 16 guinea pigs died from intercurrent disease and no evidence of tuberculosis could be found at the postmortem. The remaining 13 remained tuberculin negative 92 days after the inoculation, when they were sacrificed.

Another set of experiments demonstrated that the dust collected by scrapings from garments worn by patients with open tuberculosis would not infect guinea pigs. However, this failure should not give rise to a sense of false security and to a laxity of precautionary measures. The summary includes the following suggestions:

a. It seems at the present time, the best way to ease the mind of the possibility of transmission by a book which has been handled by a patient with open tuberculosis, is to store or quarantine the book for several weeks until the morbid material has completely dried, as it has been shown repeatedly that the drying robs the bacilli of their power of producing disease in animals. This measure was recommended by British Joint Tuberculosis Commission.

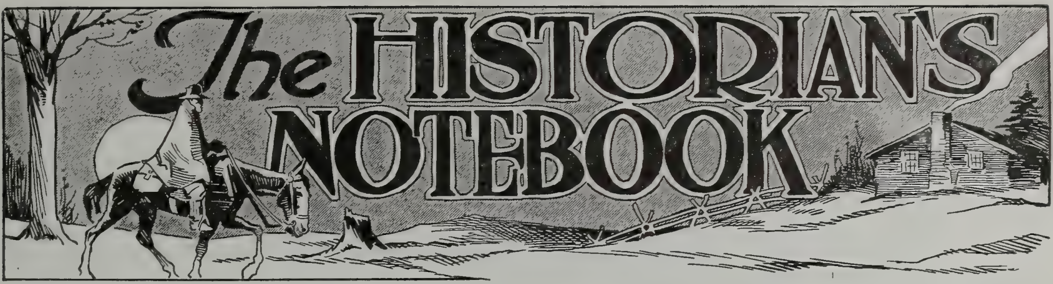
b. We have no suggestion of importance to make as to how the patients' garments should be disinfected. Perhaps the safest way is to expose them to the sun and air for a few days before storing away.—M. A. Jacobs, M.D. and S. A. Petroff, Ph.D., Quarterly Bull. Sea View Hosp., Oct., 1941.

Tubercle Bacilli in the Autopsy Room

Two incidents seem to have prompted this study: The isolation of acid-fast organisms from the surface of eyeglasses worn during an autopsy on an active case of tuberculosis; and the observation that the incidence of tuberculosis among medical students appears to be proportional to their contact with autopsy material during the second year in medical school.

Lungs from patients who died from tuberculosis were sectioned in the usual manner, the trachea was opened, regional lymph nodes were examined and all cavities were opened with scissors. This was done under a shield, equipped with a glass plate situated eight inches directly above the specimen. After a 15 minute examining period the plate was washed with sterile saline solution.

The growths which were obtained from the washings lead to the conclusion that methods of examination which make use of a compression technic contaminate the atmosphere in the vicinity of the autopsy and that fresh tuberculous lungs are decidedly dangerous, and are a potent source of atmospheric contamination against which methods of proper protection should be devised.—Ruell A. Sloan, M.D., N.Y. State Jour. of Med., Jan. 15, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Notes on Wayne County, Ohio and Sketches of Some of Its Notable Physicians

R. C. PAUL, M.D

The Author

● Dr. Paul, Wooster, Ohio, is a graduate of Medical Department, University of Wooster, 1892; charter member of Kinney and Knestrick Hospital; member of staff, Wooster City Hospital.

THE early boundaries of Wayne County were illy surveyed and were in no sense accurate. It was the third County formed in the great Northwest Territory, Washington County being the first, and Hamilton the second, the former embracing all the territory east of the Scioto and Cuyahoga rivers and the latter, what is now southwestern Ohio.

Wayne County was established by proclamation of Gen. Arthur St. Clair, who was chosen Governor when the Northwest Territory was created in 1788. From the mouth of the Cuyahoga River where it empties into Lake Erie at Cleveland, to "new Portage" in Summit County, following the Tuscarawas River through Stark County to north line of Tuscarawas County, there terminating the eastern original boundary of Wayne County; thence in a southeastern direction on the Greenville treaty line; on the County line between Stark and Tuscarawas, to the east line of Holmes County; thence across Holmes County to the northeast corner of Knox County; then on the line between Knox and Ashland and on through devious ways and windings until it at first embraced a large scope of territory, including one-third of present Ohio, one-eighth of Indiana, the northeast corner of Illinois, including the site of Chicago, the eastern one-fifth part of Wisconsin, the State of Michigan, all of Lake Michigan, one-half of Lake Superior, Huron, St. Clair and the northwestern part of Lake Erie, including the battle ground on which Perry's victory was achieved.

The County Seat of this vast domain, which contained one hundred thirty-three thousand square miles was larger than England, Ireland, Scotland and Wales, was located at Detroit, which city is still in a County named Wayne.

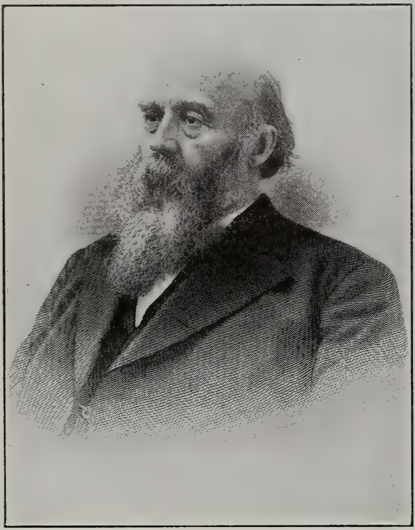
Wayne County, Ohio, as is now established was by an act of the Ohio State Legislature, January 4, 1812. It is composed of 16 Townships. It was named in honor of Major General Anthony Wayne, an ardent patriot of the Revolutionary War. A few outstanding facts relative to the position in which Wayne County stands, might have some bearing in the high type of physicians that have graced its past as well as its present; men seeking a prosperous community in which to live.

Wayne County enjoys the enviable distinction of ranking third in the United States in agricultural wealth. Credit for this high rating is due to a number of factors, among which are a soil and climate adapted to a wide diversity of crops, a thrifty and progressive rural population, and its proximity to good markets.

In Ohio, Wayne County ranks first in the feeding of lambs, and in the total value of all livestock; in the production of eggs and potatoes. Mr. A. C. Ramsier, of Smithville, six miles from Wooster, is a general farmer owning 2250 acres, practically in one block, but is interested more in potatoes, having planted here last year, twelve hundred and fifty acres in this County, also owning many acres in Pennsylvania where he grows his seed potatoes. He harvested this year 325,000 bushels and is the largest personal grower of potatoes in the United States.

We may now with the above background, call to the attention some of the outstanding physicians of the County and can mention only a few, but there are many of whom we might speak just as interestingly. We have had access to several different histories of Wayne County from the private library of Lyman A. Adair, M.D., Wooster, Ohio, to whom we look as Wayne County's Medical Historian. From his book shelves may be found works on all subjects, from a complete set of McGuffey's Readers to a complete set of the Annals of Medical History.

We feel that in the confines of Wayne County may be found the history of many physicians, whose separate careers have been recognized as among the few in their chosen profession that have attained marks of ability, struggles in adversity, prominence in their community, success in life and passing on to their reward in ages from comparatively young lives to ages far past their allotted time.



DR. LEANDER FIRESTONE

Among the younger men may I call your attention to Eli Dudley Pocock, the preceptor of the writer who died at the age of 49, from cerebral hemorrhage. Dr. Pocock was born on a farm of 1760 acres purchased by his father, a blacksmith who came from Hartford County, Maryland, and purchased the above tract of land in Clinton Township in 1815. He also purchased 640 acres in Ashland County, Ohio, and was the father of 15 children, two of the sons being physicians. The subject of this sketch responded to his country's call to the Union Army and enlisted in June, 1862, at the age of 17 in the 86th O.V.I. and served his full time, after which his name appears on the rolls of the 166th and 186th O.V.I. He is said to have had the largest number of enlistments of any soldier from Wayne County. He graduated from Bellevue Hospital January, 1870; located in Mansfield, and in 1873 removed to Shreve where he maintained a successful and lucrative practice of medicine. He maintained one of the largest private collections of antiques and archæological specimens in Ohio.

As Dr. Pocock's student the writer placed on exhibition in Columbus in 1889 a very fine and much admired collection from his large accumulation of archæological specimens, one particular Indian profile made from arrow heads and darts of different colors, framed, which was presented to the Ohio Archæological Society at this centennial celebration. We knew of no one who grew a larger, longer, more nicely kept beard than Doctor Pocock.

The physicians from Wayne County who have had some outstanding characteristic or honor bestowed upon them, are so many it is difficult to select those most interesting and limit them to the space allotted us.

Our memory reverts to one man in particular to whom many older practitioners remember with satisfaction, Leander Firestone. He was born in Saltcreek Township, Wayne County, 1819, worked on a farm until 14 years of age, then to Columbiana County, then to Portage County where, for three months, he indulged in the health-inspiring, muscle-expanding, chest-enlarging, lung-invigorating occupation of chopping cord wood at three shillings per cord, and hard beech at that.

He graduated in medicine in the Medical Department of Western Reserve College, Cleveland, Ohio, and in 1847 was made demonstrator of anatomy in that institution. He was appointed superintendent, Northern Ohio Asylum, at Newburg. In 1858 he was elected president of the Ohio State Medical Association. In 1864 he became professor of Obstetrics and Diseases of Women in Charity Hospital Medical College, Cleveland. In 1870 this institution was constituted the Medical Department of University of Wooster, where he held professorship of Obstetrics and Medical and Surgical Diseases of Women, Lecturer on Anatomy, Physiology and Hygiene.

Dr. Firestone received the title of LL.D. by University of Ohio at Athens in 1874. He was popular as a public lecturer. His addresses were eloquent and masterly productions, replete with pathos and sentiment and chaste and sublime in imagery. His descriptive power was terse and brilliant; his analyzations methodical and thorough; the feeling of the higher key and reflective. Among his many achievements he was an accomplished violinist. Following him was his son, W. W. Firestone, M.D., graduating in 1865, who rapidly rose to success and popularity in his profession in Wooster, Ohio.

* * *

Wm. S. Battles, M.D., was a graduate of Starling Medical College, February 22, 1852, and later attended short terms in 1853 and 1854 in Philadelphia, New York and Cleveland. He owned a farm at Mill Brook, three miles north of Shreve, where he was a medical student with Dr. T. H. Baker, a practitioner of Mill Brook.

His sorrel team was a visible object, and a community known mode of transportation on his daily round of a country practitioner and his commuting between his office in Shreve and his farm at Mill Brook. He was courteous alike toward friend and stranger; he exhibited admirable gaiety and earnestness of sentiment. He had fluency and flexibility of conversation and force and facility of composition. He loved poetry, and his sentimental and emotional attitude put him in harmony with nature, with whose heart he must have been in tune; hence he not only loved her, but reveled in her; plunged into her infinite bosom and filled himself to intoxication with her charms. He wrote many poems on various subjects. Having a limited space we append three stanzas from a poem entitled:

Mrs. Adam

"God first made a man and
Then made a woman
By changing his base, and
Altering the plan;
'Tis said they were perfect,
As doubtless they were,
Moulded by Diety
A beautiful pair.

"Immortal in Spirit,
In body the same,
Effulgent in life
Without limit, they came
Produced by a word,
From inanimate clod,
They sprang into being
In the image of God.

"He gave them the world,
And spoiled them, I think.
Untoiled for their food,
Unlabored their drink;
For want of employment
Into mischief they ran,
When Eve with the Devil
Played the devil with man".

* * *

Springtime

"Oh, days! so dark and sunless
Oh, nights! of rain and cloud;
Cold reigns supreme, and nature's
Still wrapped in wintry shroud.

"Chilled from the frozen marshes
Ye choristers of bogs,
Roll out your bellowing basses
Oh, music loving frogs.

"Croak, croak ye sable ravens,
Your mournful numbers bring
In dolorous, doleful accents
A requiem of Spring."

* * *

Joe H. Todd, M.D., born in Franklin Township, Wayne County, Ohio, February 4, 1837, was a medical student of Shreve, Ohio, of the poet physician W. S. Battles, above mentioned, and preceptor of the well known Mason, and G.A.R. enthusiast, Dr. Eli D. Pocock of whom we have written.

Dr. Todd entered upon his studies and aimed to be an educated practical man. Opportunity was gracious to him and he took many special personal occasions to add to his general and medical knowledge under such men as Austin Flint, Jr., Delefield, Hamilton and other specialists in eastern schools of medicine and surgery. He had an excellent professional, historical and miscellaneous library, and his passion for the accumulation of books was a mania. Dr. Todd was an archæologist of rare ability and persevering type.

In his office, home, out-buildings, wherever room was found was a large collection of animals, fossiliferous remains, petrifactions, botanical, mineralogical, zoological and geological specimens, stalactites from the Mammoth Cave, gold quartz from Colorado, Peru and Mexico, splintered rock from El Capitan, fishes and alligators from the Gulf, boas, anacondas, elk, bison, lichens and mosses from Alaska.

A remarkably interesting personal character, he died August 11, 1936, aged 99 years, six months, and seven days. He was the oldest Mason in the nation, and the second oldest practicing physician in Ohio and the oldest member of the Wayne County Medical Society.

In 1872 Dr. Todd married Ophelia, daughter of James Campbell, a native of Pennsylvania, of Scotch extraction, a scion of the celebrated Campbell family, one of whom, the Marquis of Lorne, married a daughter of Queen Victoria. To our subject and wife was born one son, James Campbell Todd, March 17, 1874. The young man studied medicine, was graduated from the University of Pennsylvania in 1900.

Being a rather frail lad and on account of his health, moved to and lived in Oregon where, before his untimely death, he became associated in the faculty of the Denver and Gross College of Medicine, as an assistant in pathology and director of clinical laboratory, lecturer, associated professor of pathology, and was pathologist and clinical microscopist to Denver City and County Hospital, St. Anthony's Hospital, Children's Hospital, and Evangelical Lutheran Sanitarium for Consumptives. Dr. J. C. Todd will be remembered by his contribution to medicine in his textbook, "Clinical Diagnosis by Laboratory Methods", which was in the sixth edition at the time of his death.

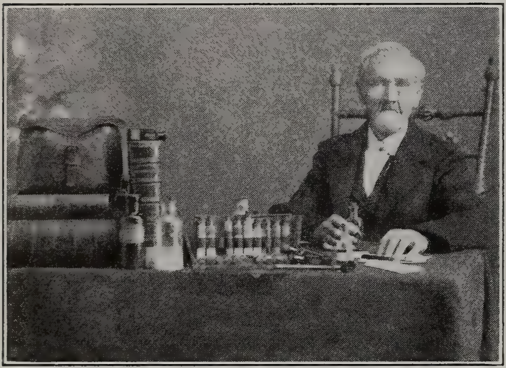
One of the early practitioners in the county was Dr. C. H. Wilgohs at Doylestown, Wayne County, Ohio. The following is a news item on Dr. Wilgohs ninety-fifth birthday:

"A large and happy company gathered at the home of Dr. C. H. Wilgohs, Sunday, November 20, 1898, to remind the Doctor that he had added another stone to the already large number of milestones in his life journey, and to wish him many more returns of the day.

After a bounteous dinner, the company was photographed and as the sun sank in the west the guests took their departure, saying, they hoped to help him celebrate his 100th birthday, to which the Doctor cheerfully replied, 'If I have anything to do with it, I will be here'.

The Doctor, although 95 years old, looks and acts like a well preserved man of 60; is an exceedingly good conversationalist, walks without a cane, and thinks five miles is but a short tramp, reads without glasses and retains a large practice, one which many younger men would be glad to have.

He attributes his old age to the fact he has never allowed himself to be inactive but has kept thoroughly abreast of the times in all things. He said he never used tobacco nor touched liquor until 43 years of age, and has always been temperate in all things.



DR. C. H. WILGOHS, Doylestown, Ohio, oldest practicing physician in the United States, Nov. 20, 1897, aged 94 years.

He comes of a long lived family, having an uncle who was hale and hearty at 137½ years of age, which was the last time he heard of him, and another uncle lived to the age of 106 and his grandmother at the age of 97, could thread the finest needle.

In fact, there has not been a death of a male member of the family from natural causes under 100 years of age for at least 400 years.

The Doctor was born upon a baronial estate near the City of Kiel, in the province of Scheswig Holstien, Germany. It was then a part of Denmark. His father, at the time of his birth, was surgeon general of the army of the north, but afterwards resigned and became syndicus of the State of Muhlenburg, a position of great importance, both politically and financially. He was killed at the age of 83, when horseback riding while attending to the duties of his position.

Dr. Wilgohs came to America in 1835 and took permanent residence in Wayne County in 1840. In 1845 he married Maria Leibelsperger, a grand-daughter of George Babb, of Springfield, Ohio. She died in 1849. In 1854 he married Miss Catherine Shondel, his present wife. He is the father of seven living children and has lost five.

All the great cities have grown and increased, some being but villages, some not even existing when he came to this country."

Doctor Wilgohs died at the age of 101, at Doylestown, Wayne County, Ohio. As a boy, he saw Napoleon's army march through Russia.

Wayne County may well take pride in the part she played in the matter of medical education. Many eminent physicians have received their preliminary medical training at the College of Wooster, where first rate biology department is maintained.

The department of biology at Wooster was organized by Dr. Horace N. Mateer, who was the first professor of that subject for a long period of years and who was also a much respected practitioner of medicine in Wooster.

Dr. Mateer graduated from the University of Pennsylvania in 1883. After completing an internship he came to Wooster to practice his profession. He was probably the first physician in Wooster to have had a modern medical training as laboratory teaching was then in its infancy. For years Dr. Mateer did the medical laboratory work in Wooster and vicinity.

One day shortly after Dr. Mateer had been established in Wooster, a committee from the College faculty came to see him about organizing a biology department there. His reply was, "I do not know any thing about the subject". The spokesman for the committee retorted, "Go find out something about biology and come back". The Doctor took his advice and the result was that Wooster College was one of the first schools to have a biology department, and that was headed by an eminent teacher from 1886 to 1926.

Among outstanding medical men who received their early training at Wooster are: Marion Blankenhorn, now professor of medicine at University of Cincinnati School of Medicine; John G. Mateer, chief of the division of gastroenterology at the Ford Hospital, in Detroit, and a son of Dr. Horace N. Mateer; James C. Todd, whose name is mentioned elsewhere in the sketch was also a pupil of Dr. Mateer. Wayne County is proud of these names in medicine and her pride is further enhanced by the fact that they were sons of eminent Wayne County physicians.

Henry Blankenhorn, Orrville, Wayne County, Ohio, was a graduate of Western Reserve, a practitioner of known ability, of striking gentlemanly appearance, recognized as a leader in his community until his death in 1923. He was the father of two sons who studied medicine, the younger one a graduate of Western Reserve in 1920, practicing in Orrville, until his untimely death in 1931.

Marion Blankenhorn, the elder son graduated from Western Reserve in 1915. Served his internship at Lakeside Hospital, was assistant professor of medicine Western Reserve University until 1933, later becoming chief of the medical department of the University of Cincinnati, the position he now holds and is recognized as an authority by the profession in general.

New Procurement and Assignment Forms Distributed; All Ohio Physicians Urged To Complete Them as Soon as Possible; Army and Navy in Need of More Doctors

AN Enrollment Form and a Questionnaire have been mailed by the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, Washington, D. C., to each physician, dentist and veterinarian in the nation.

These are the blanks which were promised by the Procurement and Assignment Service some time ago, the printing of which was delayed because of prior commitments of the Government Printing Office at Washington.

The purpose of these forms is twofold: (1) To provide a means whereby each physician, dentist and veterinarian may **volunteer** his services in some capacity (in the armed forces, in other governmental service, or in essential civilian practice) and; (2) to obtain pertinent information about each physician, dentist and veterinarian so the manpower of these professions can be used to the best advantage during the emergency.

The data collected through the questionnaires will be added to the National Roster of Scientific and Specialized Personnel which is consulted when the needs of the Army, Navy and other governmental agencies for professional personnel have to be met.

It is the hope of the Committee on Medical Preparedness of the Ohio State Medical Association, which is serving as the Ohio Procurement and Assignment Committee for Physicians by official designation, that each Ohio physician will fill out the Enrollment Form and the Questionnaire promptly and mail them to Washington in the envelope which accompanied the forms.

Any physician who does not receive these forms should file a request for them with the Executive Officer, Procurement and Assignment Service, Office of Defense Health and Welfare, Washington, D. C.

Any physician who previously has enrolled with the Procurement and Assignment Service **should fill out and return the new Enrollment Form and the Questionnaire.**

Each physician now in the armed forces should fill out the new forms. Why it is important that he do so will be referred to later in this article.

Following are some of the important reasons why each physician should enroll with the Procurement and Assignment Service and fill out the Questionnaire which has been referred to:

1. **By enrolling with the Procurement and Assignment Service a physician will be indicating his willingness to cooperate in some capacity in the winning of the War.** Every physician, as well as every other citizen, is obligated to do his part in meeting the national crisis. This is his opportunity to inform the government of his willingness to aid in some way.

2. **This is an opportunity for older physicians—those who cannot qualify for the Army and Navy because of age but who are anxious to do their part—to make their contribution by enrolling for services with some other governmental agency requiring medical personnel or to express a willingness to take on essential assignments in civilian or industrial medical practice.** The same applies to physicians of all ages who cannot meet the physical requirements of the armed forces.

3. **Every physician who enrolls with the Procurement and Assignment Service will be utilizing an opportunity to indicate to the government where and how be believes his services and talents can be used to the best advantage.**

4. **Each physician when he enrolls will be able to present important facts regarding his present type of work, practice or appointment.** By this means the government will be in a better position to avoid (at least minimize) the dislocation of physicians from work and practice which are essential for the preservation of the health of the civilian population and industrial workers.

5. **By filling out the Questionnaire as completely as possible, each physician will assist in bringing up-to-date the information about himself which is now on file with the National**

Roster. The original American Medical Association survey of medical personnel was made more than a year ago. Some of that data is obsolete now. The status of many physicians has changed during the past 12 months. If complete, up-to-date information about each physician is on file at Washington, he will be improving his chances, should he enter military services, of obtaining an assignment for which he is best qualified.

6. **Physicians now on active military service and those holding reserve commissions, but who have not been called for duty, should fill out the forms for by so doing they will be submitting important information about their qualifications and specialty.** This data undoubtedly will be consulted by the Army and Navy and will be used as a basis for promotions in rank or in the assigning of medical officers to duties where their special talents can be utilized advantageously.

7. **All physicians subject to active service under the Selective Service Act (those under 45 years of age) should recognize the advantage of enrolling with the Procurement and Assignment Service.** If enrolled with the Procurement and Assignment Service a physician affords himself protection against unreasonable and hasty action on the part of his local Selective Service Board. If a physician who has enrolled with the Procurement and Assignment Service is placed in Class 1-A by his local Selective Service Board undoubtedly the board will take this fact into consideration and grant him temporary deferment pending receipt of a commission through the cooperative system established by the Procurement and Assignment Service and the Army and Navy. A commission may be obtained by a physician more quickly by enrolling with the Procurement and Assignment Service than by any other method. This fact is of special significance to a physician who is in the 1-A Class under the Selective Service Law.

8. **By enrolling with the Procurement and Assignment Service, each physician will be making a contribution toward the success of this voluntary effort on the part of the medical profession to maintain an equitable distribution of the medical manpower of the country for the duration of the war.** The Procurement and Assignment Service was suggested by the medical profession and it is being supervised by a committee representing the medical, dental and veterinary professions. If it operates efficiently and receives the cooperation of all physicians, dentists and veterinarians, the Procurement and Assignment Service will become an effective agency in producing an adequate supply of professional personnel for the armed services and other governmental agencies but at the same time will protect the civilian population, industry and professional schools against the hazard of an undersupply of essential medical, dental and veterinary personnel.

Dr. Lahey's Letter About the New Forms

Following is the text of the letter sent to each physician with the new Enrollment Form and the Questionnaire over the signature of Dr. Frank H. Lahey, chairman, Directing Board, Procurement and Assignment Service, and president of the American Medical Association:

"Dear Doctor:

"Enclosed are the enrollment form and the questionnaire. The information you supply, together with that on previous questionnaires, will be utilized in calling for your services in the capacity in which you will be most valuable.

"The Procurement and Assignment Service was established by authority of the President to develop and maintain lists of physicians, dentists and veterinarians from which the armed services and other agencies can obtain necessary personnel. These needs must be met.

"Please fill out both the enrollment form and the questionnaire immediately and return them in the enclosed envelope, which requires no postage. This will show that you have declared your willingness to do your part in meeting the national need. If you desire more detailed information, consult the official release by the Procurement and Assignment Service concerning its aims and functions which appeared in recent issues of national and state medical, dental and veterinary journals.

"The return envelope bears the address of the National Roster of Scientific and Specialized Personnel. This is the governmental agency that is sorting and tabulating information regarding all scientific and professional personnel. The information from the questionnaires will be transmitted to the Procurement and Assignment Service.

"Every physician, dentist and veterinarian, regardless of age, sex, race, physical condition, citizenship or employment, should fill out and return the enrollment form and the questionnaire. If you have a commission in any United States Service, so indicate under the heading 'remarks' on the enrollment form. The questionnaire and enrollment forms previously returned are now being utilized to meet requests coming in daily from the armed services and other agencies. Even if you have previously filled out such an enrollment form or questionnaire, fill out the enclosed forms. The additional information brings up-to-date the facts necessary to place you in the work for which you are best qualified."

CONTENT OF NEW FORUM

The new Enrollment Form of the Procurement and Assignment Service For Physicians provides spaces whereby the physician signing the blank may indicate his first, second, third and fourth choices of assignment "if called upon by the Procurement and Assignment Service".

The list of assignments offered are: United States Army Medical Corps, United States Navy Medical Corps, United States Public Health Service, United States Civil Service Agencies (Veterans' Administration, Saint Elizabeth's Hospital, Washington, D.C., resident staff and interns, Indian Service, Panama Canal Service), Office of Civilian Defense (full time), State Health Departments, Local Health Departments, Industrial Practice, Civil Practice in Home Community, Civil Practice in Other Localities, and State and Local Institutions. Space also is provided for specification of "other services".

DATA ASKED ON QUESTIONNAIRE

The Questionnaire asks for personal data and in addition information on the following subjects: Foreign language, military service, physical condition, foreign travel, description of personal hobby (aviation, radio, photography, etc.), educational background, appointments in governmental departments, hospitals, insurance companies, etc., type of work and practice, specialization, approval by special boards, and present war activities.

NEED FOR MEDICAL PERSONNEL

For military reasons the War and Navy Departments cannot reveal the number of physicians of the country who are now on active duty with the armed forces. However, it is no secret that many thousands more will be required by the end of 1942. Information from reliable sources indicates that by the end of the year approximately 16,000 additional physicians will be needed to meet the requirements of the Army and Navy and other governmental agencies.

On March 28, the Procurement and Assignment Service at Washington announced that the Army Air Force has requested 2,500 additional medical officers, to be commissioned by July 1, and has indicated that it will need on an average of 600 new medical officers each month during the balance of 1942—approximately 6,100 between now and December 31.

The Army Air Force has stipulated that 80 per cent of the physicians to be commissioned must be under 37 years of age and the remainder between the ages of 37 and 45 years. Those in the older group must be qualified by certification as specialists, preferably in the fields of surgery, ophthalmology and neuropsychiatry. A request for application forms should be sent to the Air Surgeon, Army Air Force, Washington, D.C., but all names will be cleared through the Procurement and Assignment Service.

Ironton Hospital Laboratory Approved

The laboratory of the Lawrence County General Hospital, Ironton, in charge of F. C. Hodges, M.D., was officially approved by the State Department of Health for the performance of premarital blood tests, effective March 27. This is the first addition to the list of laboratories approved by the department on February 16, published on page 275 of the March, 1942, issue of *The Ohio State Medical Journal.*

Bulletin on Protection of Hospitals Is Issued by O.C.D.

"Protection of Hospitals", Bulletin No. 3 of the Medical Division of the Office of Civilian Defense, prepared in collaboration with a special committee of the American Hospital Association, has now come from the press in its official form. It was previously published in several hospital journals in order that the material could be used by hospitals at the earliest possible moment.

The bulletin discusses protection of hospitals against air raids under the following heads: Protection of building fabric, patients and personnel; protection of glass; ventilation; protection against fire; rescue squads; air raid shelters; blackout regulations; protection of utilities; facilities for care of casualties; unit system and reserve stocks; the ambulance entrance; morals; distribution of casualties to wards.

Diagrams show how sandbag barricades can be used for temporary reinforcement; how to protect windows against shattering of the glass without cutting off ventilation, and several methods of blacking out. There is a sketch suggesting how an ambulance entrance can be designed to eliminate unnecessary turns and there are also designs for signs to guide ambulances in the blackout.

The section on protection of glass gives detailed instructions on materials that can be used and methods of applying them. Under "Protection Against Fire" there is a description of the various types of incendiary bombs and of the approved methods of fighting them. The report emphasizes the importance of fire and evacuation drills.

Books of Death Certificates To Be Furnished Physicians Under New Plan; Advantages Cited

Ohio physicians may now obtain a supply of blank death certificates from local registrars of vital statistics, in the same manner as blank birth certificates are now provided.

This procedure, suggested by Dr. R. H. Markwith, State Director of Health, was approved by The Council of the Ohio State Medical Association on March 8, (April issue, *The Journal,* page 383).

Advantages of the new plan are: (1) The physician may complete the medical statements on the death certificate at his convenience and will not be disturbed by the funeral director during his busy office hours; and (2) the funeral director will be relieved of the necessity of making several return visits to the physician's office or home.

It was pointed out that such an arrangement has been in operation in one of the larger counties of the state for some time, and appears to be working satisfactorily.

LOOKING AHEAD

Discussion of Some of the Problems and Readjustments Confronting the Medical Profession During the War

By **ROBERT CONARD, M.D.**, Wilmington, Ohio

(Chairman, Ohio Procurement and Assignment Committee, and Chairman, Committee on Medical Preparedness, Ohio State Medical Association)

IN the operation of the Procurement and Assignment Service for Physicians up to this time most of the attention of the Ohio committee has been directed to securing information which will assist the War and Navy Departments in their vital job of getting sufficient medical personnel for the armed forces. The information sought has been of many kinds but chiefly it has been concerning the "availability" of medical men of military age. The term "availability" means—can the medical and health needs of a community be adequately met if a certain physician (or a number of physicians) of the community enters the Army or Navy.

It is important that physicians have a clear understanding of the purpose and function of the Procurement and Assignment Service. It is an advisory, consultant body, established to make investigations, supply information and encourage voluntary enlistment of medical personnel in the armed forces. It can not make a doctor enter the service. By way of contrast, the Selective Service System is an agency with authority to obtain manpower for the armed forces by compulsion.

CHIEF FUNCTION

The chief function of the Procurement and Assignment Service has been to pass on the availability of physicians who have **volunteered** for military service. In a few instances, it has been requested by the Selective Service System to comment on the availability of a physician being considered by a local draft board for placement in Class 1-A but the draft board is not obligated to follow the recommendations of the Procurement and Assignment Service. However, a physician classified, or about to be classified, by his draft board in 1-A can be reasonably sure of obtaining a commission prior to entering the service by enrolling with the Procurement and Assignment Service.

In performing its duties the Ohio committee has considered as imperative the task of trying to insure against a situation which would leave a community unprotected from a medical and health standpoint and to minimize, so far as possible, disturbances of the normal distribution of medical care and medical services. The question of protecting the faculties of medical schools, medical staffs of defense industries, research institutions and hospital departments also has been carefully considered by the committee.

MUST BE GROUP COOPERATION

Part of this responsibility of protecting the civilian population against an inadequacy of medical personnel and health services must be borne by the medical profession as a group. Serious thought should be given at this time by each county medical society, particularly societies in rural areas, as to how the doctors remaining at home may make readjustments so as to maintain adequate services for the people of the county.

How this can be done in each area is a local problem and a heavy responsibility is laid upon each county medical society to solve questions of distributing medical care in a way which will be as satisfactory as possible under abnormal conditions. This must be done to meet the immediate crisis. If a long view is taken, it must be done to obviate the chance that some outside agency, governmental or otherwise, might find some reason to step in and attempt to regulate the matter.

READJUSTMENTS NECESSARY

In some instances the citizens of certain areas have insisted that their physician should not be considered available for military service because the community would be left without medical attention. These statements have been found to be valid in some cases. In other instances, investigation has shown that accessibility by roads is good and that one or more towns with considerable numbers of physicians above military age, but still active, are within a reasonable distance.

Citizens are going to have to realize that they must make adjustments. Some will have to look to other physicians for medical care because their family doctor has entered the military service. Some communities may have to depend on the facilities of nearby towns. Efforts will have to be made to avoid calling the doctor unnecessarily to assist him in conserving his time.

On the other hand, physicians who remain at home will have to make adjustments, also. They will have to extend the scope of their practices and work longer hours than in normal times. They will have to make some sacrifices.

MILEAGE QUESTION

One point has arisen which deserves special mention. Citizens in some rural communities have contended that the mileage charges for home visits made by physicians from neighboring towns are, or will be, beyond their ability to pay. Prompt consideration should be given to this point by medical societies of rural areas. There may be arguments pro or con as to whether mileage should or should not be charged by a physician in making calls to outlying territories, but that is not the point. The point is simply this: Those members of the medical profession who remain at home for one reason or another are obligated to render a patriotic service in their own way and one of their major responsibilities is to see that the medical needs of the people of their community are met and that charges are kept within the ability of the patient to pay. It may become necessary in some areas to eliminate or scale down mileage charges to accomplish this. Perhaps the problem could be met in some villages and small towns by having physicians from surrounding towns serve those areas on a rotating basis or by opening an "office" in the town or village where ambulatory patients could meet physicians on certain days of the week.

The time for county societies to be thinking through on these questions is now, before the situation becomes acute. By planning now to meet such emergencies the physicians of a county will be doing the public as well as themselves a good turn.

Where Mail To Dr. Conard Should Be Addressed

Dr. Conard, Ohio chairman for the Procurement and Assignment Service for Physicians, is utilizing the facilities of the State Headquarters Office of the Ohio State Medical Association, 79 East State Street, Columbus, for secretarial and clerical work in connection with Procurement and Assignment activities.

Communications to him as Ohio Chairman, Procurement and Assignment Service, should be sent to that office in order to expedite the handling of the mass of details which that assignment entails.

Blood Collections For Army, Navy Reported at Increasing Rate

With 30,477 blood donations being reported for the first two weeks in March by Red Cross chapters maintaining donor centers, the program for supplying blood plasma to the armed forces has entered its second year of operation with an excellent start. Inaugurated in February, 1941, at the request of the Surgeons General of the Army and Navy, donor centers are now operating in 18 cities.

Shortly after beginning of the project the Red Cross was requested to deliver 215,000 units of plasma by July, 1942. Following Pearl Harbor this figure was increased by 165,000 units, bringing the total number to be delivered by July, 1942, to 380,000. For the year beginning July 1, 1942, the Army and Navy have requested the Red Cross to obtain an additional 550,000 units, making a minimum total of 930,000 units. To provide this total will require somewhat in excess of 1,000,000 donors, it is estimated.

By the end of November, 1941, the Red Cross blood donor centers then participating in the program had collected and delivered to processing laboratories a total of 27,352 donations. The number of donations during December was 18,396. In January this figure was doubled, 37,109 donations being made. Collections in February totaled 53,780, and with the first two weeks in March reporting at a monthly rate of approximately 65,000, there is every prospect that the goals that have been set will be reached.

Red Cross blood donor centers are now in operation in the following cities: New York, Philadelphia, Baltimore, Buffalo, Rochester, N.Y., Indianapolis, Detroit, Pittsburgh, St. Louis, Boston, Milwaukee, Cleveland, Chicago, San Francisco, Los Angeles, Cincinnati, Washington, D.C., and Brooklyn.

According to the report seven commercial laboratories have contracts with the government for processing plasma on a cost basis. The total number of donations during the first year of operations aggregated 82,857, of which 55,505 were made in the nine weeks of December and January.

Dr. Selby Wins High Award

Dr. Clarence D. Selby, Detroit, medical director of General Motors Corporation, was awarded the William K. Knudsen award for accomplishment in the field of industrial medicine, at the recent meeting of the American Association of Industrial Physicians and Surgeons at Cincinnati. Dr. Selby is a past-president of the Ohio State Medical Association.

WAR NOTES

CLEVELAND'S Dr. Carl E. Zeithaml figured prominently in a recent International News Service dispatch from "Somewhere in Australia." INS Correspondent Merrill Mueller, who reported his visit to an Ohio Air Corps unit while they were uncrating newly arrived Airacobra pursuit ships wrote:

"As I was standing there, watching the boys work, an air corps medical officer, Lt. Carl E. 'Doc' Zeithaml of Cleveland, came up to the spot, took a look, and said:

" 'How are they doing?'

"Then he answered his own question.

" 'They're out to beat yesterday's record for assembly,' he observed.

"A grave young man of 36, 'Doc' Zeithaml is the only man in the world that the pilots of this particular outfit fear. For he's the only one who can ground them if he finds their heart, pulse, eyesight, or some other physical factor off the mark of perfection required of modern combat flyers."

Later in his story, in which he mentioned the names of a dozen or so Ohio flyers, the reporter said that the airplane he and Dr. Zeithaml watched being assembled was in the air in less than five hours after the first nail was pulled from the crate.

* * *

Army General Hospital No. 25, the Cincinnati unit, is in the final stages of organization and now has a personnel that includes more than 60 physicians and 120 nurses. At press time no official orders for mustering it into service had been received, but when it is called to duty, The Journal will publish full details of its completed organization.

* * *

Now safe in Ohio after a perilous escape from Japanese submarines and land forces is the family of Dr. Gordon Seagrave, medical missionary in Burma and a 1921 graduate of Johns Hopkins University School of Medicine. Mrs. Seagrave and her four children are now at Granville, having arrived in the United States after being under fire from Japanese in Rangoon for a week. Before leaving she assisted Dr. Seagrave in operations on Burmese battlefields and drove an ambulance on the Burma Road. The doctor is also a graduate of Denison University, where his older daughter is now a senior.

Col. C. W. Goble, State Director of Selective Service, recently sent a memorandum to all local draft boards in Ohio reminding them of their responsibility to report cases of tuberculosis to local health officers. He urged the board members to "cooperate fully with health commissioners and recognized tuberculosis societies in the follow-up of these cases" (of registrants rejected on account of tuberculosis).

* * *

Akron City Hospital is one of seven hospitals in the United States—the only one not connected with a medical school—selected by the National Research Council for special war time experimentation with sulfonamides. This research in chemotherapy and its application to war casualty treatment is under the direction of Dr. John S. Lockwood, of the University of Pennsylvania School of Medicine.

* * *

Several Ohio physicians in the Army Medical Corps have recently been assigned to duties as flight surgeons with units of the Air Corps. Among them are:

Maj. M. M. Best, Xenia, a recent graduate of the School of Aviation Medicine, now at Morris Field, Charlotte, N.C.

Maj. George P. Tyler, Jr., Ripley, who was until recently at Fort Meade, Md., now at Scott Field, near St. Louis.

Capt. Richard L. Meiling, Columbus, assistant surgeon to the First Air Force, Mitchel Field, New York.

Capt. John A. Riebel, Ashland, flight surgeon to the 118th Observation Squadron, Charleston, South Carolina.

Capt. Earl Rosenblum, Columbus, a recent graduate of the School of Aviation Medicine, flight surgeon to the bombardment squadron at Will Rogers Field, Okla.

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Hoarding of first aid materials was severely condemned by Director James M. Landis of the Office of Civilian Defense in a recent public statement. He declared that the unlimited purchase of gauze bandages and other first aid materials threatens to cause a serious shortage of them and interfere with procurement of essentials by the Army and the Emergency Medical Service of the OCD. He attributed this to a false notion of air raid precautions and the mistaken belief that air raid wardens and others in similar un-

Dayton Medical Specialist Unit Now on Overseas Duty

Dayton physicians who comprise Medical Specialist Unit No. 57, U.S. Naval Reserve, are shown in the above photograph. This unit, one of the first to be called for active duty after America entered the war, was stationed at the U.S. Naval Hospital, San Diego, California, until recently. As this issue of The Journal went to press, word was received that the unit had been ordered to overseas duty. The officers are: seated, left to right, Lt. Comdr. Arthur M. Culler, ophthalmologist; Lt. Comdr. Marion W. Coleman, urologist; Comdr. Walter M. Simpson, internist and officer-in-charge of sick officers' quarters; Lt. Comdr. Harry R. Huston, surgeon; and Lt. Comdr. Jerome Hartman, orthopedist; standing, left to right, Lt. Thomas P. Sharkey, alternate internist; Lt. Comdr. Lawrence F. Patterson, dental surgeon and prosthodontist; Lt. Comdr. James L. Sagebiel, neuropsychiatrist; and Lt. Norman J. Birkbeck, roentgenologist. The unit was organized in 1935 by Commander Simpson at the request of the Surgeon General of the Navy. Lt. Paul L. Yordy, former anesthetist at Miami Valley Hospital, Dayton, was commissioned and assigned to the unit after this picture was taken.

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qualified capacities are expected to render emergency medical care.

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Among Ohio physicians serving as officers in the Army Medical Corps who have recently received promotions in rank are the following:

Col. Stanley G. Odom, commanding officer, post station hospital, Fort Hayes;

Maj. George R. Krause, Cleveland, chief roentgenologist, Station hospital, Fort Jackson, S.C.;

Capt. Ralph H. Shilling, Columbus, now at Fort Taylor, Key West, Fla.; Capt. Harold A. Lotzoff, Lima, now at Fort Jackson, S.C.; Capt. Richard L. Meiling, Columbus; Capt. Earl Rosenblum, Columbus; Capt. R. L. Shively, Toledo, now at Cayey, Puerto Rico; Capt. John A. Riebel, Ashland; and Capt. Walter F. Bartz, Youngstown, last reported in the Philippines.

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Plasma procurement programs are under way in several smaller Ohio communities as well as in the metropolitan areas, according to recent newspaper articles. In Xenia, Dr. Ben R. McClellan, health-medical chairman for the Xenia

Defense Council, is supervising the collection and storage of 250 pints of plasma in McClellan Hospital. A mobile Red Cross blood donor unit has visited northeastern Ohio communities, including Ashtabula and Geneva, according to press reports, for the purpose of blood procurement.

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Lt. Comdr. H. P. Worstell, former chief of the Medical Section, State Industrial Commission, has been assigned as medical officer for the new pre-flight ground school for Naval Aviation cadets which has been established at the State University of Iowa, Iowa City. Dr. Worstell has until recently been stationed at Great Lakes, Ill.

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A third four-day course in chemical warfare for physicians was opened recently at the University of Cincinnati College of Medicine under the direction of Dr. Leon Goldman, of the department of dermatology, and Dr. Robert Kehoe, director of the Kettering Laboratory. Physicians enrolled in this intensive study session were drawn from the Middlewestern region. The first course was attended by 30 physicians from the northern Atlantic seaboard, and the second by physicians from throughout the country. This special instruction is being sponsored by the Office of Civilian Defense.

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Dr. Harold R. Conn, Akron, is the author of an article on "The Battalion Medical Officer" in the April 11 issue of *The Journal of the A.M.A.*

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Among Ohio physicians who were known to be with General Wainright on Bataan Peninsula, the Philippines, are Maj. C. G. Jackson, Kenton, and Lt. David Brown, Columbus. Both are graduates of Ohio State University College of Medicine, Dr. Jackson in the class of 1931 and Dr. Brown in the class of 1935.

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Matriculation dates for freshman classes during the next three years under the new concentrated 32-month course have been announced by the School of Medicine of Western Reserve University. They are: June 22, 1942; March 1, 1943; November 8, 1943; July 17, 1944; and March 26, 1945. These dates, of course, may be changed according to developments.

* * *

Dr. James D. King, Singapore-born Chinese physician, is now engaged in special study of body armor in the surgical research department of Ohio State University College of Medicine. Dr. King is studying the effects of modern high explosives on the lungs and experimenting with small, light chestplates to offset the damaging effect of concussion waves. During the raids on Shanghai in 1937 he was surgeon at the First Base Hospital of the Chinese National Army in that city.

* * *

Vivid memories of the Japanese raid on Pearl Harbor are retained by Mrs. M. C. Archer and her two children, the family of Dr. M. C. Archer, of Medina, who have returned to their Ohio home following their evacuation from Honolulu. Dr. Archer is staying on at Stripler General Hospital, Honolulu, where he is a captain in the Medical Corps.

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Maj. Hobart L. Mikesell, West Liberty physician stationed at Camp Shelby, is the author of an article on "Teaching Field Sanitation to Troops in the Field," published in the April issue of *The Military Surgeon.*

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Ohio physicians who are eager to apply for Army commissions but who have been deterred by physical defects are urged to read the article in the March 28 issue of The Journal of the A.M.A. which sets forth the new army regulations for waiving physical defects of limited service officers.

* * *

Dr. Forest Hunter, Springfield physician, has enlisted in the U.S. Public Health Service and is currently taking an orientation course at the National Institute of Health, Bethesda, Md. On completing the course, he expects to be given the rank of Captain and assigned to New Orleans, where he will head the dermatology and syphilology service of the Public Health Service's Fourth District.

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Lt. Comdr. William McK. Johnston, Akron physician in the Navy Medical Corps, has been transferred from Great Lakes, Ill., to San Francisco, Calif.

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Dr. A. J. Lanza, who has spoken on Ohio State Medical Association annual meeting programs in recent years, has been commissioned a lieutenant-colonel in the Army Medical Corps and assigned to the post of chief of the Subdivision on Occupational and Military Hygiene in the Surgeon General's office.

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A former Toledo physician, Dr. Sherman W. Hawley, now a major in the Army Medical Corps, is chief of surgical service at the main hospital, Fort Francis E. Warren, Wyoming.

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Typical of many of the notes received from Ohio physicians in the armed services is the one sent to the Association's headquarters office by Capt. Maurice M. Kane, former Greenville physician now an Army Medical Corps officer stationed at Fort Jackson, S.C. Capt. Kane writes that "it certainly is a boost to know that we are being remembered (by continued membership—ed.) and it's hard to describe just how much *The Ohio State Medical Journal* means when it arrives."

* * *

Lt. Col. George L. King, former Alliance physician, is now in charge of the eye, ear, nose, and throat service of the Army General Dispensary, Washington. He writes that he welcomes The Journal as a means of keeping in touch with his former colleagues.

* * *

Dr. George W. Bachman, formerly of Tiffin, announced on a recent visit there that he planned to fly to China via Africa and India to assume charge of medical stations operated by the Chinese National government for both civilian and military patients. He has recently been head of the School of Tropical Medicine at San Juan, Puerto Rico.

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Events in the Philippines are of more than usual interest to Dr. A. M. Wilkins, Delta, because he served for a number of years as a medical corps officer in Luzon.

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H. N. Hooper, superintendent of Cincinnati General Hospital, has been granted a leave of absence for the war's duration to accept a position as hospital administrator for the Office of Civilian Defense. He is succeeded by Thaddeus Montgomery, former manager of the hospital.

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Among the nurses reported by the Navy as having been taken prisoner by the Japanese on Guam are Virginia J. Fogarty, Akron, and Leona Jackson, Union.

Annual Meeting Report In June Journal

A complete report of the Ninety-Sixth Annual Meeting of the Ohio State Medical Association which was held at the Neil House, Columbus, April 28-30, will be published in the June issue of The Journal.

Members who were unable to attend the Columbus meeting should watch for the June Journal and read it carefully, so that they can familiarize themselves with the important business transacted by the House of Delegates during the meeting.

Union District Meeting at Oxford

The Union District Medical Association celebrated its Seventy-Fifth Anniversary with a meeting at the Town Hall, Oxford, Thursday, April 23. Dr. A. G. Whallon, Richmond, Indiana, gave an address on "The History of the Union District Medical Association". Other speakers were: Dr. George M. Curtis, Columbus, professor of surgery, Ohio State University College of Medicine, "Intrathoracic Goiter"; Dr. W. D. Gatch, Indianapolis, Dean, Indiana University School of Medicine, "Diagnosis and Treatment of Disturbances of Fluid Balance in Burns, Peritonitis and Other States"; Dr. Parke G. Smith, Cincinnati, associate professor of urology, University of Cincinnati College of Medicine, "New Conception of Cancer of the Prostate"; Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati College of Medicine, "Deficiency Diseases".

Dr. Thomas D. Santurello, Columbus, physician-member of the State Board of Cosmetology, has been reappointed by Governor Bricker for a term ending November 1, 1944.

Editor's Speaking Engagements

Recent addresses by Dr. Jonathan Forman, Editor of *The Ohio State Medical Journal*, include the following: Ohio Student Health Association, Columbus, "Allergy Among Young People"; Plant Institute, Ohio Agricultural Experimental Station, Wooster, "Plant Life and Human Health"; P.-T.A., Waite High School, Toledo, "Nutrition of the School Child"; staff of U.S. Regional Soil Conservation Administration, Dayton, "Relation of Soil to Human Health"; Ohio Association of Medical Record Librarians, Columbus, "Nutrition, the Public and the War"; Franklin County Homemakers Council, Columbus, "Nutrition and Your Health"; Annual Banquet, Four H Club, Newark, "Improving the Health of American Youth"; Students of College of Education, Ohio University, Athens, "Importance of Conservation in the Education of Children"; Faculty of College of Education, Ohio University, Athens, "Nutrition and the War"; Lancaster High School assembly, "Glamour and Physical Strength Through Nutrition"; seminar on "Urticaria", Ohio Valley Society of Allergy, Cincinnati.

Ohio Physicians With Armed Forces as of April 17 Number 734; Have You Any Corrections or Additions to List ?

OHIO physicians on active duty with the armed forces numbered 734 on April 17, according to information secured from various sources by the State Headquarters Office.

The accompanying list was compiled from data obtained from county society officers, official army orders prior to December 7, 1941, newspaper clippings and personal communications from physicians. Obviously, its accuracy cannot be guaranteed, although every effort has been made to keep the list as authentic as circumstances would permit.

The Journal would appreciate receiving any corrections or additions to this list, particularly changes in rank due to promotions. If any reader knows of some physician now in the service whose name is not on the list, *The Journal* would appreciate having information about him.

Unless otherwise indicated, all officers listed are commissioned in the Medical Corps of either the U.S. Army or the U.S. Navy.

No attempt has been made to indicate the Army or Navy assignments of the Ohio physicians because of censorship regulations and the continuous changes in their locations due to troop movements.

OHIO PHYSICIANS WITH ARMED FORCES AS OF APRIL 17

Name	City	Rank
Abbott, Osler A.	Cincinnati	1st Lt., U.S.A.
Abrahamson, Ira A.	Cincinnati	Lt. Col., U.S.A.
Abrams, Harold J.	Cleveland Hts.	Capt., U.S.A.
Adelman, Jack A.	Columbus	Lt., U.S.N.
Adelman, Louis	Cleveland	Capt., U.S.A.
Akers, Robert H.	Columbus	1st Lt., U.S.A.
Albanese, Nicholas A.	Columbus	Col., U.S.A.
Albert, Irwin C.	Cincinnati	1st Lt., U.S.A.
Allen, Chester H.	Portsmouth	Major, U.S.A.
Allen, Samuel	East Liverpool	1st Lt., U.S.A.
Allenbach, Theodore C.	Worthington	Capt., U.S.A.
Althoff, Wm. R.	Dayton	Capt., U.S.A.
Ambrose, Wm. Harris	Greenfield	Lt. Col., U.S.A.
Anderson, J. B.	Cleveland	Lt. Comdr., U.S.N.
Angerman, Walter	Wooster	1st Lt., U.S.A.
Archer, M. C.	Medina	Capt., U.S.A.
Armstrong, Chas. Benj.	Cincinnati	1st Lt., U.S.A.
Armstrong, Harry G.	Dayton	Major U.S.A.
Arthur, Robert Daniel	Springfield	Capt., U.S.A.
Ash, E. E.	Cincinnati	1st Lt., U.S.A.
Axthelm, M. F.	Caledonia	1st Lt., U.S.A.
Babione, Robert W.	Luckey	Lt. Comdr., U.S.N.
Bahrenburg, James H.	Canton	Major, U.S.A.
Baker, P. H.	Columbus	1st Lt., U.S.A.
Bard, Alfred K.	Cleveland	1st Lt., U.S.A.
Barker, Harold J.	Cleveland Hgts.	Capt., U.S.A.
Barnard, Wm. H.	Toledo	Capt., U.S.A.
Barr, Harry R.	Cleveland	1st Lt., U.S.A.
Barr, J. O.	Cleveland	1st Lt., U.S.A.
Bartz, Walter Fredk.	Youngstown	Capt., U.S.A.
Bauhof, N. F.	Canton	1st Lt., U.S.A.
Baurichter, F. Paul	Cincinnati	Lt., U.S.N.
Beach, Wilber E.	Middlepoint	Lt. Col., U.S.A.
Becker, William	Toledo	1st Lt., U.S.A.
Beeman, H. O.	Port Clinton	Capt., U.S.A.
Behm, Alton Wilson	Chardon	1st Lt., U.S.A.
Belinky, Nathan Donald	Youngstown	1st Lt., U.S.A.
Benedetto, Eugene Rudolph	Alliance	1st Lt., U.S.A.
Beren, Irvin B.	Cincinnati	1st Lt., U.S.A.
Berger, Irving L.	Cleveland Hts.	1st Lt., U.S.A.
Berger, Peary B.	Englewood	Capt., U.S.A.
Berlin, Fred P.	Wapakoneta	Capt., U.S.A.
Berndt, Albert Louis	Portsmouth	Capt., U.S.A.
Bernel, Emmet	Akron	1st Lt., U.S.A.
Bershadsky, Solomon	Cincinnati	1st Lt., U.S.A.
Beshara, Edmund	Cleveland	1st Lt., U.S.A.
Best, Marshall M.	Xenia	Major, U.S.A.
Bill, Herbert E.	Cleveland	1st Lt., U.S.A.
Binzer, Isadore Irving	Toledo	1st Lt., U.S.A.
Birkbeck, Norman J.	Dayton	Lt., U.S.N.
Blandford, S. E.	Cleveland	Capt., U.S.A.
Blinn, John C.	New Philadelphia	Capt., U.S.A.
Boehm, Lloyd M.	Toledo	Lt. (j.g.), U.S.N.
Boice, Robert R.	Pomeroy	Capt., U.S.A.
Bolton, Ralph D.	Canton	1st Lt., U.S.A.
Bolton, Wilbur M.	Cleveland	Major, U.S.A.
Bonnell, Geo. H.	Worthington	1st Lt., U.S.A.
Borer, R. J.	Toledo	Capt., U.S.A.
Bossard, Samuel LeRoy	Gallipolis	Major, U.S.A.
Boucher, Howard E.	Columbus	Col., U.S.A.
Bowman, Robert E.	Cleveland	Major, U.S.A.
Bowsher, Robert E.	Toledo	1st Lt., U.S.A.
Boylan, Peter C.	Cleveland Hgts.	Capt., U.S.A.
Bremen, Harry	Dayton	1st Lt., U.S.A.
Breuer, Alfred	Cleveland Hgts.	Capt., U.S.A.
Brinker, Herbert Jos.	Cincinnati	Capt., U.S.A.
Briola, Patsie F.	Cleveland	Capt., U.S.A.
Bronson, L. H.	Cleveland	Capt., U.S.A.
Brooks, Roy E.	Akron	1st Lt., U.S.A.
Brown, Arthur A.	Canal Fulton	Capt., U.S.A.
Brown, David	Columbus	1st Lt., U.S.A.
Brown, John Edwin, Jr.	Columbus	Capt., U.S.A.
Brown, L. Emmitt, Jr.	Akron	1st Lt., U.S.A.
Brown, Robert Henry	Cincinnati	1st Lt., U.S.A.
Brown, Wilbur Max	Mansfield	Capt., U.S.A.
Brubaker, E. R.	Springfield	Lt. Comdr., U.S.N.
Brugler, Guy	Cleveland	Major, U.S.A.
Brumbach, J. J.	Canton	Major, U.S.A.
Brumley, D. R.	Tiffin	Major, U.S.A.
Buckley, C. J.	Cleveland	Lt. Comdr., U.S.N.
Bunin, Simon	Cleveland	Capt., U.S.A.
Burgin, Bernard	Cincinnati	1st Lt., U.S.A.
Burnstine, Marcus D.	Columbus	Capt., U.S.A.
Burr, Neil M.	Cleveland	Capt., U.S.A.
Burroughs, Shepard A.	Ashtabula	Capt., U.S.A.
Burstein, Henry A.	Toledo	Capt., U.S.A.
Burstein, Theodore	Canton	Lt. Col. U.S.A.
Butcher, Wendell A.	Ironton	Lt. (j.g.), U.S.N.
Cafaro, Secondo Raymond	Youngstown	Capt., U.S.A.
CaJacob, Melville E.	Cincinnati	1st Lt., U.S.A.
Caldwell, H. E.	Delaware	Major, U.S.A.
Calland, Wm. R.	Barberton	1st Lt., U.S.A.
Callander, Adelbert R.	Delaware	Major, U.S.A.
Calo, Frank J.	East Cleveland	1st Lt., U.S.A.
Campbell, George Warren	Columbus	1st Lt., U.S.A.
Campbell, Ivor McIvor	Akron	Flight Lt., Royal Canadian Air Force
Campbell, L. E.	Cleveland	1st Lt., U.S.A.
Campion, Woodrow M.	Cleveland	1st Lt., U.S.A.
Carlisle, Richard C.	Columbus	Capt., U.S.A.
Carmichael, J. C.	Cleveland	1st Lt., U.S.A.
Carnes, J. N.	Gallipolis	1st Lt., U.S.A.
Carney, Wilfred I.	Youngstown	Capt., U.S.A.
Carson, Jas. H.	Martins Ferry	Capt., U.S.A.
Carter, Burr N.	Cincinnati	Lt. Col., U.S.A.
Carter, Wm. H.	Cleveland	1st Lt., U.S.A.
Caton, Russell J.	Bucyrus	Lt. Col., U.S.A.
Cavanaugh, Harold Norbert	Reading	Capt., U.S.A.
Cellio, Lewis W.	Carrollton	Major, U.S.A.
Chamberlain, Webb P., Jr.	Cleveland	Capt., U.S.A.
Chambers, David A.	Cleveland	Major, U.S.A.
Chapla, Albert Benj.	Lorain	1st Lt., U.S.A.
Chappel, Merwin R.	Athens	Capt., U.S.A.
Clifford, R. V.	Girard	Lt., U.S.N.
Cline, Abe	Dayton	Lt. Comdr., U.S.N.
Clippinger, Conrad K.	Dayton	1st Lt., U.S.A.
Coers, Burt N.	Circleville	1st Lt., U.S.A.
Cohen, Sander	Cincinnati	Capt., U.S.A.
Coleman, Marion	Dayton	Lt. Comdr., U.S.N.
Collette, Elmon	Cleveland	Capt., U.S.A.
Collins, James Robert	Cleveland	Capt., U.S.A.
Colvin, Joseph W.	Cincinnati	Lt., U.S.N.
Conn, Harry G.	Toledo	Major, U.S.A.
Cook, Robert Gibson	Cincinnati	1st Lt., U.S.A.
Couch, Cleon C.	Cleveland	1st Lt., U.S.A.
Cox, Ralph L.	Cleveland	Major, U.S.A.
Cranston, Clyde J.	Wakeman	Major, U.S.A.
Crawford, Robert R.	Mansfield	Lt., U.S.N.
Creamer, David Myers	Bellaire	1st Lt., U.S.A.
Cremer, Albert Eden	Lima	1st Lt., U.S.A.
Crile, Geo. W., Jr.	Cleveland	Lt., U.S.N.
Crone, John T., Jr.	Milford	Capt., U.S.A.
Culler, Arthur M.	Dayton	Lt. Comdr., U.S.N.

Name	City	Rank
Cunningham, Ralph Burbank	Cincinnati	1st Lt., U.S.A.
Cunningham, Walter A.	Steubenville	Capt., U.S.A.
Curtiss, E. J.	Lima	Lt. Col., U.S.A.
Curtzwiler, Francis C.	Toledo	Capt., U.S.A.
Cushing, E. H.	Cleveland	Lt. Comdr., U.S.N.
D'Amore, Amanto Primo	Masury	Capt., U.S.A.
Danchik, S. A.	Columbus	1st Lt., U.S.A.
Davidow, Sidney L.	North Jackson	1st Lt., U.S.A.
Davies, Drew L.	Columbus	Lt. Comdr., U.S.N.
Davis, Alexander N.	Dayton	Capt., U.S.A.
Davis, Daniel	Toledo	1st Lt., U.S.A.
Deishley, Chas. Jos.	Columbus	1st Lt., U.S.A.
Del Vecchio, James John	Yorkville	Capt., U.S.A.
DeMeter, Steven R.	Cleveland	1st Lt., U.S.A.
DeOreo, Gerard A.	Cleveland Hgts	1st Lt., U.S.A.
Dial, Donald	Cleveland	British Medical Corps
Disbro, Proctor	Cleveland	Lt., U.S.N.
Dix, Carr E.	Columbus	Capt., U.S.A.
Dobkin, Arthur	Akron	Major, U.S.A.
Docter, Luebert	Genoa	1st Lt., U.S.A.
Doering, John Ward	Logan	Capt., U.S.A.
Dole, John A.	Ironton	1st Lt., U.S.A.
Donley, Robert Francis	Columbus	Capt., U.S.A.
Doran, Joseph Kannaly	Cleveland	Capt., U.S.A.
Dorr, Hugh C.	Columbus	Capt., U.S.A.
Dorroh, Glenn U.	Cincinnati	Major, U.S.A.
Dougherty, John Edwin	Canton	Capt., U.S.A.
Downing, John S.	Akron	1st Lt., U.S.A.
Duncan, Chas. H.	Cincinnati	Lt. (j.g.) U.S.N.
Dunn, David Dennis	Cleveland	1st Lt., U.S.A.
Dutrow, Howard V.	Dayton	Major, U.S.A.
Dutton, Arthur S.	Put-In-Bay	Capt., U.S.A.
Dworkin, Harry	Cincinnati	1st Lt., U.S.A.
Eberle, Wm. Harrison	Ashtabula	1st Lt., U.S.A.
Eckstein, Richard Waldo	Cleveland	1st Lt., U.S.A.
Eddy, Howard C.	Cleveland	Major, U.S.A.
Edel, Chas. H.	Ashtabula	Major, U.S.A.
Edelstein, Joseph B.	Toledo	Capt., U.S.A.
Edwards, Thomas M.	Cincinnati	1st Lt., U.S.A.
Egeberg, Roger O.	Cleveland	Major, U.S.A.
Egolf, Chas. Foster	Cincinnati	Capt., U.S.A.
Eichhorn, John P.	Cleveland	1st Lt., U.S.A.
Eisner, David G.	Cleveland	Capt., U.S.A.
Elkins, Chas. W.	Cleveland	Capt., U.S.A.
Ellis, Samuel C.	Xenia	Capt., U.S.A.
Engel, Wm. J.	Cleveland	Lt. Comdr., U.S.N.
Enright, Wm. M.	Barberton	Lt., U.S.N.
Ensign, Paul R.	Toledo	Lt. Col., U.S.A.
Epstein, Samuel	Struthers	Capt., U.S.A.
Ernstene, A. Carlton	Cleveland	Lt. Comdr., U.S.N.
Ersay, Emil F.	Cleveland	Capt., U.S.A.
Everett, Clyde W.	Cleveland	Capt., U.S.A.
Fakehany, J. P.	Toledo	Lt., U.S.N.
Fancher, Paul S.	Delaware	Major, U.S.A.
Fanelli, Walter	Cleveland	Capt., U.S.A.
Fargo, Warren Conrad	Cleveland	Lt. Col., U.S.A.
Farver, W.	Akron	Capt., U.S.A.
Fasoldt, Laurence Otto	Glendale	Capt., U.S.A.
Fee, Charles H.	Columbus	Capt., U.S.A.
Feistkorn, Karl H.	Marion	1st Lt., U.S.A.
Ferguson, Edward Egner	Cleveland	Capt., U.S.A.
Fink, Joseph J.	Cleveland	Capt., U.S.A.
Finkelmeier, Louis J.	Cincinnati	1st Lt., U.S.A.
Fish, John Spencer	Cleveland Hgts	1st Lt., U.S.A.
Fitzsimmons, R. J.	Columbus	1st Lt., U.S.A.
Floridis, Gregory G.	Dayton	Capt., U.S.A.
Foertmeyer, Adolphus Wm.	Cincinnati	Major, U.S.A.
Ford, Sylvester C.	Cleveland	1st Lt., U.S.A.
Fornes, Wm. John	Lakewood	1st Lt., U.S.A.
Forrester, C. R.	Toledo	Lt., U.S.N.
Forrester, Jos. Chas.	Columbus	1st Lt., U.S.A.
Forteza, Rosendo, Jr.	Columbus	Capt., U.S.A.
Forward, Donald D.	Ashtabula	Capt., U.S.A.
Fowler, Evan C.	Sebring	1st Lt., U.S.A.
Fox, Wm. L.	Cleveland	Col., U.S.A.
Francis, Carl C.	Cleveland	1st Lt., U.S.A.
Frederick, Lewis Oliver	Osborn	1st Lt., U.S.A.
Frederick, Victor R.	Urbana	1st Lt., U.S.A.
Freedman, Eugene	Cleveland	Major, U.S.A.
Freedman, Mark A.	Columbus	Capt., U.S.A.
Freilich, Myron Abraham	Zanesville	1st Lt., U.S.A.
Fridline, G. D.	Ashland	Capt., U.S.A.
Fritz, W. A.	Wooster	Major, U.S.A.
Fromm, Eugene Paul	Cincinnati	1st Lt., U.S.A.
Fronek, O. J.	Cleveland Heights	Lt., U.S.N.
Frye, C. Mc.	Newark	Capt., U.S.N.
Galinson, Sim Harry	Dayton	1st Lt., U.S.A.
Gallen, John	Columbus	Capt., U.S.A.
Gardner, J. Stanley	Cleveland	Lt. (j.g.) U.S.N.
Gardner, W. James	Cleveland	Lt. Comdr., U.S.N.
Gebauer, Paul W.	Cleveland	Capt., U.S.A.
Gernon, William	Cleveland	Capt., U.S.A.
Gerson, Samuel Kenneth	Lancaster	1st Lt., U.S.A.
Gibbons, John Tipton	Celina	Capt., U.S.A.
Giber, Philip B.	Girard	1st Lt., U.S.A.
Gilbert, Harold Raymond	Cleveland	1st Lt., U.S.A.
Gilford, Jack	Cleveland Hgts	Capt., U.S.A.
Gillespie, Benjamin S.	Tacoma (Belmont)	1st Lt., U.S.A.

Name	City	Rank
Ginn, Guy Augustus	Springfield	Capt., U.S.A.
Glazier, McCleery	Cleveland	Lt., U.S.N.
Glenn, Paul M.	Cleveland	Capt., U.S.A.
Glicklich, Earl A.	Cincinnati	1st Lt., U.S.A.
Glomb, Albert M.	Cleveland	Lt., U.S.N.
Glover, Donald M.	Cleveland	Major, U.S.A.
Goldberg, Samuel D.	Youngstown	Capt., U.S.A.
Goldcamp, John Stephen	Youngstown	Capt., U.S.A.
Golden, Abraham A.	Akron	1st Lt., U.S.A.
Goler, Harold K.	Cleveland	Major, U.S.A.
Goodman, Julien M.	Cleveland	Capt., U.S.A.
Goodman, Lawrence H.	Findlay	Capt., U.S.A.
Gordon, Nathan Gold	Akron	1st Lt., U.S.A.
Gordon, Wm. T.	Cincinnati	1st Lt., U.S.A.
Gould, Joseph I.	Toledo	Capt., U.S.A.
Graham, John Herbert	Cleveland	1st Lt., U.S.A.
Grau, Harry R.	Cleveland	Capt., U.S.A.
Gray, R. E.	Cleveland	1st Lt., U.S.A.
Greenberg, David	Steubenville	Major, U.S.A.
Greenberg, Marcel	Cleveland	Capt., U.S.A.
Greenburg, Samuel Lester	Steubenville	1st Lt., U.S.A.
Greenfield, Jack	Cleveland	1st Lt., U.S.A.
Gregg, Walter K.	Dayton	Capt., U.S.A.
Grigsby, Robert E.	Cincinnati	Capt., U.S.A.
Grogan, Francis Robert	Urbana	1st Lt., U.S.A.
Grollman, Jaye J.	Cincinnati	1st Lt., U.S.A.
Groom, Horace E.	Akron	Lt. Col., U.S.A.
Gross, Theodore Anthony	Cleveland	1st Lt., U.S.A.
Grossman, Royal Geo.	Lakewood	Lt. Col., U.S.A.
Grove, Paul Dewey	Cincinnati	Capt., U.S.A.
Guilford, F. R.	Columbus	1st Lt., U.S.A.
Gulmi, Peter F.	Cleveland	Capt., U.S.A.
Gustafson, Milton Henry	Cleveland	1st Lt., U.S.A.
Haines, J. W.	Cleveland	1st Lt., U.S.A.
Halfhill, James W., Jr.	Lima	Capt., U.S.A.
Halloran, William W.	Cleveland	Major, U.S.A.
Hamann, Carl A.	Cleveland	Capt., U.S.A.
Hamilton, Frank E.	Columbus	Capt., U.S.A.
Hammersley, E. R.	Tuscarawas	Lt., U.S.N.
Hamsher, John F.	St. Paris	Major, U.S.A.
Hanna, Myron	Findlay	Lt. Col., U.S.A.
Hanger, Irwin C.	Cleveland	Major, U.S.A.
Hansen, Paul G.	Warrensville	Capt., U.S.A.
Hantman, Meyer	Cleveland	Major, U.S.A.
Hardesty, H. H.	Cleveland	1st Lt., U.S.A.
Hardman, Edw. Francis	Youngstown	1st Lt., U.S.A.
Hargett, Edgar Reese	Springfield	1st Lt., U.S.A.
Harmon, H. E.	Chillicothe	Lt. Col., U.S.A.
Harper, E. O.	Cleveland	Major, U.S.A.
Harris, Frank H.	Martins Ferry	Capt., U.S.A.
Harrison, Francis Regis	East Liverpool	Capt., U.S.A.
Hartman, Jerome	Dayton	Lt. Comdr., U.S.N.
Hartzler, Adrian Jos.	Wooster	1st Lt., U.S.A.
Harvey, Arch Dunham	Lebanon	1st Lt., U.S.A.
Haskin, Grace	Cleveland	British Emergency Med. Service
Hauman, H. L.	Toledo	Lt., U.S.N.
Hauss, John F.	Celina	1st Lt., U.S.A.
Hawkins, Benj. L.	Cincinnati	1st Lt., U.S.A.
Hawley, Sherman R.	Toledo	Major, U.S.A.
Hayman, Joseph M.	Cleveland	Lt. Col., U.S.A.
Hazel, Woodrow S.	Youngstown	1st Lt., U.S.A.
Hedlund, G. O.	Painesville	Lt. Comdr., U.S.N.
Heller, Morris I.	Cleveland	Capt., U.S.A.
Hellwig, Edward Franz	Cleveland	1st Lt., U.S.A.
Hengen, Henry E.	Amherst	1st Lt., U.S.A.
Henrie, Chas C.	Celina	1st Lt., U.S.A.
Herbst, Mark Gardner	Canton	Capt., U.S.A.
Herr, Albert H.	Cleveland	Major, U.S.A.
Herzberg, Mortimer, Jr.	Cincinnati	1st Lt., U.S.A.
Hibbs, Ralph E.	Cleveland	Capt., U.S.A.
Hill, Edward Robert	Cleveland	1st Lt., U.S.A.
Hilles, Geo. Forster	Cleveland	1st Lt., U.S.A.
Hirsch, Frederic G.	Toledo	Lt., U.S.N.
Hoffman, Henry L.	Cleveland	1st Lt., U.S.A.
Holmberg, Robert E.	Cleveland	1st Lt., U.S.A.
Hoover, Reuben H.	Columbus	Capt., U.S.A.
Horger, Wm. J.	East Liverpool	Capt., U.S.A.
Horowitz, Martin M.	Columbus	1st Lt., U.S.A.
Horton, Robt. John Munro	Cleveland Hgts	1st Lt., U.S.A.
Hosking, Frederick S.	Cleveland	Lt. (j.g.) U.S.N.
Howe, Charles E.	Westerville	Capt., U.S.A.
Hudson, E. Herndon	Athens	Lt. Comdr., U.S.N.
Hullinger, Clarence Wm.	Springfield	Major, U.S.A.
Hulse, Charles Alfred	Cleveland	1st Lt., U.S.A.
Hume, Robert C.	Athens	Capt., U.S.A.
Humphrey, Harold I.	Cincinnati	Capt., U.S.A.
Humphreys, James W.	Cincinnati	1st Lt., U.S.A.
Humphries, John K.	Bellecenter	1st Lt., U.S.A.
Hunter, Howard Marston	Hamilton	1st Lt., U.S.A.
Huston, Harry R.	Dayton	Lt. Comdr., U.S.N.
Inglis, Robert M.	Columbus	1st Lt., U.S.A.
Inman, J. G.	Manchester	Capt., U.S.A.
Ipp, Herman H.	Youngstown	1st Lt., U.S.A.
Ivins, Paul N.	Hamilton	Capt., U.S.A.
Jackson, Calvin G.	Kenton	Major, U.S.A.
Jackson, Harry D.	Circleville	Col., U.S.A.
Jacobs, Herbert	Cleveland	1st Lt., U.S.A.
Jauch, Roland Schuster	Rocky River	Capt., U.S.A.
Jennings, Wm. M., Jr.	Sylvania	Capt., U.S.A.

Name	City	Rank
Joelson, James J.	Cleveland	Major, U.S.A.
John, Henry Jerry	Cleveland	Major, U.S.A.
Johnson, H. H.	Cleveland	1st Lt., U.S.A.
Johnson, Herbert Clifford	Mt. Vernon	1st Lt., U.S.A.
Johnston, Albert M.	Marysville	Capt., U.S.A.
Johnston, Robert L.	Silverton	Major, U.S.A.
Johnston, Walter B.	Lakewood	Major, U.S.A.
Johnston, Wm. McKinley	Akron	Lt. Comdr., U.S.N.
Jones, Paul Herdman	Stockdale	Major, U.S.A.
Jordan, Valdemar M.	Cleveland	1st Lt., U.S.A.
Junkerman, Carl Schulze	Columbus	Major, U.S.A.
Junkerman, Edgar B.	Columbus	Major, U.S.A.
Kahn, Joseph R.	Cleveland	Capt., U.S.A.
Kalina, R. K.	Cleveland Hgts	1st Lt., U.S.A.
Kalmon, M.	Akron	Capt., U.S.A.
Kamesis, John J.	Cleveland	Capt., U.S.A.
Kane, Maurice M.	Greenville	Capt., U.S.A.
Kaplan, Ronald R.	Cleveland Hgts	1st Lt., U.S.A.
Karlan, A. M.	Springfield	1st Lt., U.S.A.
Katz, Harry Leon	Cleveland	1st Lt. U.S.A.
Katz, Sidney	Cleveland	1st Lt., U.S.A.
Kaylor, Fred W.	Bellefontaine	1st Lt. U.S.A.
Keck, Herman	Cincinnati	Lt., U.S.N.
Keller, Bayard Martin	Cuyahoga Falls	1st Lt., U.S.A.
Keller, Wm. McConkey	Lodi	1st Lt., U.S.A.
Kelly, Donald A.	Cleveland	Capt., U.S.A.
Kelly, Fred R.	Cleveland	1st Lt., U.S.A.
Kennedy, Roscoe J.	Cleveland	Lt. Comdr., U.S.N.
Keogh, Joseph P.	Youngstown	Lt. (j.g.) U.S.N.
Kessler, Morris M.	Cleveland Heights	1st Lt., U.S.A.
King, Arthur G.	Cincinnati	Major, U.S.A.
King, Boyd G.	Cleveland	Major, U.S.A.
King, E. Richard	West Liberty	Lt., U.S.N.
King, Geo. Lincoln, Jr.	Alliance	Lt. Col., U.S.A.
Kirchman, Herbert	Germantown	1st Lt., U.S.A.
Kirk, T. K.	Dayton	Capt., U.S.A.
Kirkendall, E. T.	Columbus	Col., U.S.A. (Field Artillery)
Kish, Louis S.	Cleveland	1st Lt., U.S.A.
Kistler, Victor N.	Columbus	1st Lt., U.S.A.
Klatman, M.	Akron	1st Lt., U.S.A.
Klopfenstein, A. R.	Toledo	Lt., U.S.N.
Klopfer, Edward G.	Cleveland	1st Lt., U.S.A.
Knickerbocker, Wadsworth	Cleveland	Capt., U.S.A.
Knisely, Alan DeGrief	Lima	Major, U.S.A.
Knisely, Earl Perry	Columbus	1st Lt., U.S.A.
Koehler, Joseph S.	Dayton	Lt. Comdr., U.S.N.
Kolb, Thomas V.	So. Charleston	Capt., U.S.A.
Kossuth, L. C.	Cleveland	1st Lt., U.S.A.
Kostoff, Albert	Columbus	Capt., U.S.A.
Krasne, Saul	Wickliffe	1st Lt., U.S.A.
Krause, George R.	Cleveland	Major, U.S.A.
Kreindler, Louis	Cincinnati	1st Lt., U.S.A.
Kreps, Adam	Akron	1st Lt., U.S.A.
Kriz, Joseph Rudolph	Toledo	Capt., U.S.A.
Kuntz, Clarence I.	Fremont	Capt., U.S.A.
Kunz, Franklyn Craig	Akron	1st Lt., U.S.A.
Lacock, W. B.	Logan	Major, U.S.A.
Lacock, Wilford C.	Beaverdam	1st Lt., U.S.A.
LaMonica, L. L.	Cleveland	1st Lt., U.S.A.
Langsam, Chas. Lewis	Macedonia	Capt., U.S.A.
Lapp, Harry Thomas	Utica	Capt., U.S.A.
Large, Henry Ranney	Cleveland	1st Lt., U.S.A.
Latta, David	Jerusalem	1st Lt., U.S.A.
Lawrence, Leslie L.	Canton	Major, U.S.A.
Lawton, O. M.	Canfield	Lt. Comdr., U.S.N.
Lazarus, Lawrence	Cleveland	1st Lt., U.S.A.
Lazzari, J. H.	Cleveland	Major, U.S.A.
Lechner, Robert H.	Berea	Capt., U.S.A.
Lehman, Robert	Dayton	Lt., U.S.N.
Leichliter, John W.	Cincinnati	Major, U.S.A.
Lesser, Henry Rothschild	Toledo	Lt. Col., U.S.A.
Leuchtag, Harry Herman	Akron	1st Lt., U.S.A.
Leyrer, Ralph Henry	Hamilton	1st Lt., U.S.A.
Liebow, Irving M.	Cleveland	Capt., U.S.A.
Lieder, Louis Eugene	Cleveland	Major, U.S.A.
Light, Richard Carl	Lima	1st Lt., U.S.A.
Light, Rudolph Alvin	Cleveland	1st Lt., U.S.A.
Limbacher, Henry P.	Cleveland	1st Lt., U.S.A.
Lind, S. C.	Cleveland	Lt. Comdr., U.S.N.
Lindenmayer, Ernest Frank	Ashtabula	1st. Lt., U.S.A.
Loeb, William J.	Cleveland Heights	Capt., U.S.A.
Lotzoff, Harold A.	Lima	Capt., U.S.A.
Lovebury, Wm. F.	Columbus	Capt., U.S.A.
Lowery, Roswell	Cleveland	1st Lt., U.S.A.
Lynch, Cornelius. Jr.	Toledo	1st Lt., U.S.A.
Lytle, R. P.	Cleveland	Capt., U.S.A.
Mallin, Lloyd P.	Cincinnati	1st Lt., U.S.A.
Mannino, Rosario, G.	Newark	1st Lt., U.S.A.
Maple, John Lloyd	Louisville	1st Lt., U.S.A.
Marcus, L. L.	Toledo	Capt., U.S.A.
Margolis, Meyer, N.	Cincinnati	1st Lt., U.S.A.
Markey, Leo R.	Cleveland	Major, U.S.A.
Markley, Wm. W.	Cleveland	1st Lt., U.S.A.
Marsh, Wm. C.	Toledo	Lt., U.S.N.
Marshall, J. H.	Findlay	Major, U.S.A.
Marsico, H. C.	Lorain	1st Lt., U.S.A.
Marsico, John A.	Lorain	Capt., U.S.A.
Martin, George Isaac	Dayton	1st Lt., U.S.A.
Martin, Norvil A.	Gallipolis	Major, U.S.A.
Maryanski, Wm. Howard	Akron	1st Lt., U.S.A.
Masters, W. Eugene	Columbus	Lt. Comdr., U.S.N.
Matson, John W.	Uhrichsville	1st Lt., U.S.A.
Matteo, Michael L.	Cleveland	1st Lt., U.S.A.
Matuska, Walter Houser	Ottawa	Major, U.S.A.
Maurer, E. P.	Cleveland	1st Lt., U.S.A.
May, James R.	Cleveland	Capt., U.S.A.
McAllister, Thurman Francis	Coshocton	1st Lt., U.S.A.
McCall, Edward W.	Columbus	1st Lt., U.S.A.
McCally, W. C.	Cleveland	Lt. Col., U.S.A.
McCoy, States D.	Columbus	Major, U.S.A.
McCune, Elmer Troy	Sebring	1st Lt., U.S.A.
McDonald, F. M.	Akron	Capt., U.S.A.
McGaw, Wilbert H.	Cleveland	Major, U.S.A.
McGowan, Wm. Louis	Cincinnati	1st Lt., U.S.A.
McKay, J. R.	Cleveland	1st Lt., U.S.A.
McKee, Wilbur Eilers	Bryan	1st Lt., U.S.A.
McKinley, Melvin P.	Cleveland	Capt., U.S.A.
McNerney, N. H.	Cleveland	Lt. Col., U.S.A.
Meany, Frank Lawrence	Lakewood	1st Lt., U.S.A.
Meck, F. S.	Cleveland	Lt., U.S.N.
Meckstroth, Paul Gerhard	New Knoxville	1st Lt., U.S.A.
Meiling, R. L.	Columbus	Capt., U.S.A.
Meltzer, Jack	Cleveland	Capt., U.S.A.
Mendelsohn, Harry R.	Cincinnati	1st Lt., U.S.A.
Mendelsohn, Harvey J.	Cleveland	1st Lt., U.S.A.
Mescham, Isadore	Cleveland	1st Lt., U.S.A.
Meyer, Donald Duncan	Columbus	1st Lt., U.S.A.
Meyer, Paul D.	Cleveland	Capt., U.S.A.
Michael, Nicholas	Columbus	Major, U.S.A.
Mikesell, H. L.	West Liberty	Major, U.S.A.
Miller, Alexander	Cleveland	Major, U.S.A.
Miller, Isador	Cincinnati	1st Lt., U.S.A.
Miller, Jacque E.	Shelby	Lt., U.S.N.
Miller, John Fleek	Newark	Capt., U.S.A.
Milster, Clyde R.	Columbus	1st Lt., U.S.A.
Minnig, Donald Irwin	Akron	1st Lt., U.S.A.
Mishler, Howard V.	Cleveland	1st Lt., U.S.A.
Missal, Sylvester C.	Cleveland	Capt., U.S.A.
Modic, Joseph L.	Cleveland	1st Lt., U.S.A.
Montgomery, E. L.	Circleville	Capt., U.S.A.
Montlack, Morris	Cleveland	1st Lt., U.S.A.
Moody, Wm. M.	Cincinnati	1st Lt., U.S.A.
Moore, John Mark	Piney Fork	1st Lt., U.S.A.
Moore, Kenneth L.	Dayton	Capt., U.S.A.
Moore, Randolph Patton	Cleveland	1st Lt., U.S.A.
Moore, Wm. Arthur	Cincinnati	1st Lt., U.S.A.
Morse, Dan G.	Columbus	Capt., U.S.A.
Morton, J. L.	Cleveland	Capt., U.S.A.
Murbach, Clarence F.	Archbold	Major, U.S.A.
Musta, Walter	Macedonia	1st Lt., U.S.A.
Myers, Ben Vernon	Elyria	1st Lt., U.S.A.
Mynchenberg, Geo. C.	Elyria	Major, U.S.A.
Nantz, Frank A.	Cincinnati	1st Lt., U.S.A.
Nauman, John Henry	Martins Ferry	Major, U.S.A.
Neary, Edward P.	Cleveland Heights	Capt., U.S.A.
Neff, Frank R.	London	Capt., U.S.A.
Neill, W. A.	Toledo	Comdr., U.S.N.
Newport, N. M.	Zanesville	Capt., U.S.A.
Nieman, Roland Edward	Cincinnati	1st Lt.. U.S.A.
Norcross, N. C.	Toledo	Lt. (j.g.) U.S.N.
Northrup, Clarence E.	McConnelsville	Capt., U.S.A.
Northrup. Spencer	Toledo	Lt. (j.g.) U.S.N.
Novak, Theodore W.	Columbus	Capt., U.S.A.
Novince, Wm. Michael	Cleveland	1st Lt., U.S.A.
Oakes, Milton Caleb	Lexington	1st Lt., U.S.A.
O'Bell, John James	Kingsville	Capt., U.S.A.
Oberson, Emil C.	Cleveland	Capt., U.S.A.
Obrist, G. E.	Portsmouth	1st Lt., U.S.A.
Oldaker, Arch L.	Portsmouth	Capt., U.S.A.
Ondash, Stephen W.	Youngstown	Capt., U.S.A.
Ort, Milton Ross	Columbus	1st Lt., U.S.A.
Osmond, John Dexter	Cleveland Heights	1st Lt., U.S.A.
Paley, Aaron	Cleveland	1st Lt., U.S.A.
Papp, Sandor D.	Dayton	Capt., U.S.A.
Park, James Henderson	Ashtabula	Capt., U.S.A.
Patterson, O. F.	Holmesville	1st Lt., U.S.A.
Patton, Thos. E.	North Jackson	Capt., U.S.A.
Peabody, Carroll A.	Shaker Heights	1st Lt., U.S.A.
Pearlman, Albert	Cincinnati	R.A.M.C., England
Pease, Phillip P.	Chardon	Major, U.S.A.
Peebles, T. A.	Lorain	Major, U.S.A.
Pelton, Bernard L.	Toledo	1st Lt., U.S.A.
Pennington, Porter C.	Findlay	Lt. Col., U.S.A.
Perlin, M. H.	Cleveland	1st Lt., U.S.A.
Perry, Claude S.	Columbus	Major, U.S.A.
Perry, Wm. H.	Cleveland	Lt. Comdr., U.S.N.
Peters. Geo. S.	Massillon	Lt. (j.g.) U.S.N.
Peterson, Marcellus L.	Cincinnati	Lt. Col., U.S.A.
Pillersdorf, Louis	Cleveland	Capt., U.S.A.
Pimsner, Arthur Adolf	Lakewood	Capt., U.S.A.
Pitkin, Y. N.	Cleveland	Major, U.S.A.
Pliskin, Reuben R.	Akron	Capt., U.S.A.
Pocotte, Robert Wilson	Toledo	1st Lt., U.S.A.
Pollack, Alexander	Columbus	1st Lt., U.S.A.
Pollack, David	Columbus	Capt., U.S.A.
Potter, F. A.	Toledo	1st Lt., U.S.A.
Potter, Fredk. Clyde	Cuyahoga Falls	Major, U.S.A.

Name	City	Rank
Pratt, Malcolm	Bellefontaine	Lt. Comdr., U.S.N.
Price, Walter Samuel	Phillipsburg	1st Lt., U.S.A.
Prochaska, Chas. J.	South Euclid	Capt., U.S.A.
Puppel, A. D.	Delaware	1st Lt., U.S.A.
Quinn, Gerald Wm.	Akron	1st Lt., U.S.A.
Radecki, Jos. A.	Toledo	1st Lt., U.S.A.
Ramey, W. Orville	Cincinnati	Lt. (j.g.) U.S.N.
Ramsayer, Herbert Perry	Canton	Capt., U.S.A.
Randell, Asher	Youngstown	1st Lt., U.S.A.
Raskowski, A. T.	Brunswick	Capt., U.S.A.
Rath, Albert E.	Wooster	1st Lt., U.S.A.
Rayman, Lawrence	Toledo	1st Lt., U.S.A.
Read, Wm. A.	Cleveland	Major, U.S.A.
Rector, L. E.	Akron	Lt., U.S.N.
Reeves, James R.	Columbus	Capt., U.S.A.
Rehbock, Donald J.	Cleveland	Capt., U.S.A.
Renner, John A.	Youngstown	Lt., U.S.N.
Richards, Charles Emmett	Cleveland Hgts.	1st Lt., U.S.A.
Ridgeway, Joseph A.	Columbus	Capt., U.S.A.
Riebel, John A.	Ashland	Capt., U.S.A.
Robben, Francis J.	Bridgeport	1st Lt., U.S.A.
Rodenberg, Elmer J.	Columbus	Major, U.S.A.
Roller, Jay P.	Luckey	Capt., U.S.A.
Root, Harold Eastman	Bellevue	1st Lt., U.S.A.
Root, Joseph C.	Cleveland	Lt. Comdr., U.S.N.
Rose, Donald Lee	Dayton	Capt., U.S.A.
Rosenbliett, S.	Chillicothe	1st Lt., U.S.A.
Rosenblum, Earl	Steubenville	Capt., U.S.A.
Rossman, Phillip L.	Cleveland	1st Lt., U.S.A.
Rossmiller, Harold R.	Cleveland	1st Lt., U.S.A.
Roth, Carl Wm.	Columbus	1st Lt., U.S.A.
Roush, Carl E.	Cincinnati	Capt., U.S.A.
Rowe, Peter	Cleveland	1st Lt., U.S.A.
Rubin, Herman G.	Akron	1st Lt., U.S.A.
Rundell, Karl D.	Cleveland	1st Lt., U.S.A.
Runnels, Scott C.	Cleveland	Col., U.S.A.
Ruppersberg, Anthony	Columbus	Major, U.S.A.
Russin, Lester	Cincinnati	Capt., U.S.A.
Ryan, E. J.	Cleveland	Lt. (j.g.) U.S.N.
Ryan, James Edward	Kelleys Island	1st Lt., U.S.A.
Sadugor, Marvin Gerald	Cleveland	Capt., U.S.A.
Sage, Harry M.	Columbus	Lt. Comdr., U.S.N.
Sagebiel, James L.	Dayton	Lt., U.S.N.
Salsbery, Otto Howard	Norwood	1st Lt., U.S.A.
Sating, Robert J.	Cleveland Heights	1st Lt., U.S.A.
Sauer, Richard T.	Dayton	Capt., U.S.A.
Sawan, E. A.	Akron	1st Lt., U.S.A.
Schillinger, Arnold Arthur	Chillicothe	Capt., U.S.A.
Schluger, Jack	Dayton	1st Lt., U.S.A.
Schulz, Norbert J.	Marion	Lt., U.S.N.
Schumache, Lawrence P.	Cleveland	1st Lt., U.S.A.
Schumacher, Edward R.	Columbus	1st Lt., U.S.A.
Scott, R. P.	Norwalk	1st Lt., U.S.A.
Seeholtz, John R.	Toledo	1st Lt., U.S.A.
Selfman, A.	Mansfield	1st Lt., U.S.A.
Seligman, Bert	Toledo	1st Lt., U.S.A.
Semons, Robt. Jos. Earl	Carey	1st Lt., U.S.A.
Shallenberger, David	Cleveland	Capt., U.S.A.
Shamansky, Harry S.	Columbus	Major, U.S.A.
Shapiro, Wm. M.	Toledo	Lt. Col., U.S.A.
Sharkey, Thomas P.	Dayton	Lt., U.S.N.
Sharon, Isadore Chas.	Cincinnati	1st Lt., U.S.A.
Sharretts, Kenneth Campbell	Cincinnati	Capt., U.S.A.
Shaweker, Max	Dover	Lt., U.S.N.
Sheehan, Wm. J.	Cleveland	Lt. Comdr., U.S.N.
Shepard, Jos. L.	Coolville	1st Lt., U.S.A.
Sherman, M. L.	Dayton	Capt., U.S.A.
Shilling, Harry Edmund	Troy	1st Lt., U.S.A.
Shilling, Ralph H.	Columbus	Capt., U.S.A.
Shively, Russell L.	Toledo	Capt., U.S.A.
Short, Hubert	Akron	1st Lt., U.S.A.
Shulman, Leon	Steubenville	1st Lt., U.S.A.
Silver, Ezra I.	Cleveland	Capt., U.S.A.
Silver, Francis Friedman	Akron	1st Lt., U.S.A.
Simpson, Walter M.	Dayton	Comdr., U.S.N.
Sisek, Henry	Youngstown	1st Lt., U.S.A.
Smiley, John T.	Akron	1st Lt., U.S.A.
Smith, Beecher Love	Columbus	Major, U.S.A.
Smith, Earl E.	Shaker Heights	Major, U.S.A.
Smith, F. A.	Akron	Lt., U.S.N.
Smith, Frederick R.	New Paris	1st Lt., U.S.A.
Smith, Herman C.	Cleveland	Capt., U.S.A.
Smith, Kenneth D.	Columbus	Capt., U.S.A.
Smith, Merl B.	Toledo	1st Lt., U.S.A.
Smith, S. S.	Lakewood	1st Lt., U.S.A.
Smith, William Andrew	Mansfield	1st Lt., U.S.A.
Smyers, Webster Cullen	Dayton	Capt., U.S.A.
Sokol, C. R.	Youngstown	1st Lt., U.S.A.
Solomon, Walter M.	Cleveland	Capt., U.S.A.
Spangler, Fred E.	Somerset	Capt., U.S.A.
Sparks, Aubrey L.	Warren	1st Lt., U.S.A.
Sparling, Wm. Ridley	London	1st Lt., U.S.A.
Speed, George W.	St. Marys	Capt., U.S.A.
Spencer, Newton C.	Toledo	1st Lt., U.S.A.
Srulowitz, Jack	Belpre	1st Lt., U.S.A.
Stanton, Eugene Joseph	Elyria	Capt., U.S.A.
Stark, J. J.	Belpre	Capt., U.S.A.
Stempien, Stephen John	Cleveland Hgts	1st Lt., U.S.A.
Sternberg, Elmer G.	Cincinnati	Capt., U.S.A.
Stevens, Robert W.	Newark	Capt., U.S.A.
Stillinger, Cecil G.	Columbus	Major, U.S.A.
Stine, George S.	Columbus	1st Lt., U.S.A.
Stineman, John Burget	Cincinnati	1st Lt., U.S.A.
Stone, Sidney R.	Cleveland	Major, U.S.A.
Stoughton, W. A.	Columbus	Capt., U.S.A.
Strathman, Wm. Henry	Toledo	Major, U.S.A.
Strauss, Victor M. B.	Cincinnati	1st Lt., U.S.A.
Suhay, Paul Lawrence	Cleveland	Capt., U.S.A.
Suttle, Robert Courtney	Put-In-Bay	1st Lt., U.S.A.
Taggett, H. A.	Ashtabula	Lt., U.S.N.
Tanno, Anthony M.	Cleveland	1st Lt., U.S.A.
Taylor, David	Yellow Springs	Capt., U.S.A.
Taylor, Russell E.	Sandusky	Capt., U.S.A.
Thiessen, Norman W.	Cleveland	Major, U.S.A.
Thomas, James Jos.	Alliance	1st Lt., U.S.A.
Thomas, Max S.	Akron	1st Lt., U.S.A.
Thomas, Merthyn A.	Cleveland	Lt. Comdr., U.S.N.
Thompson, James E.	Washington C. H.	1st Lt., U.S.A.
Thompson, Roy H.	Cleveland	Major, U.S.A.
Thornton, John J.	Cleveland	Capt., U.S.A.
Tice, Raymond	Akron	1st Lt., U.S.A.
Tichy, V. L.	Cleveland	Capt., U.S.A.
Tillman, N. A.	Lorain	Capt., U.S.A.
Tingwald, Fred L. R.	Youngstown	1st Lt., U.S.A.
Tischler, Geo. A.	Cleveland	Major, U.S.A.
Toepfer, John B.	Cincinnati	Lt., U.S.N.
Toth, Daniel F.	Cleveland	Capt., U.S.A.
Traul, Donald	Akron	Capt., U.S.A.
Troup, Paul	Dayton	Capt., U.S.A.
Tucker, Harry S.	Cleveland	1st Lt., U.S.A.
Tupper, W. R.	Cleveland	1st Lt., U.S.A.
Turel, Stanley Edward	Cleveland	Capt., U.S.A.
Turk, Herman M.	Lima	1st Lt., U.S.A.
Tyler, Geo. P., Jr.	Ripley	Major, U.S.A.
Tyvand, R. E.	Dayton	Major, U.S.A.
Udelf, Maxwell Spencer	Cleveland	1st Lt., U.S.A.
Ulin, Louis	East Cleveland	1st Lt., U.S.A.
Urbanski, Walter Joseph	Cleveland	1st Lt., U.S.A.
Vande Velde, Jos. Daniel	Cleveland	Capt., U.S.A.
Van Horn, Earl C.	Springfield	Capt., U.S.A.
Vanneter, James C.	Columbus	Capt., U.S.A.
Vigor, Wm. N.	Brecksville	Capt., U.S.A.
Vogel, Louis A.	Lakewood	Capt., U.S.A.
Vokoun, Frank J.	Cleveland	Major, U.S.A.
Voorhis, Chas. C.	Cleveland	Capt., U.S.A.
Votypka, Edward A.	Cleveland	1st Lt., U.S.A.
Votypka, Joseph A.	Cleveland	1st Lt., U.S.A.
Wadsworth, Francis M.	Mansfield	Major, U.S.A.
Wagner, R. L.	Portsmouth	1st Lt., U.S.A.
Wahl, Robert Henry	Dayton	1st Lt., U.S.A.
Walker, Glenn H.	Woodville	Capt., U.S.A.
Walker, Winston F.	Rocky River	Major, U.S.A.
Walzer, Leo	Cleveland	Capt., U.S.A.
Ward, Charles F.	Cleveland	Lt., U.S.N.
Ward, David P.	Pemberville	1st Lt., U.S.A.
Ward, W. R.	Middletown	1st Lt., U.S.A.
Warm, Herbert	Hamilton	Lt., U.S.N.
Wartman, W. B.	Cleveland	Major, U.S.A.
Waters, Wm. I.	Dayton	Capt., U.S.A.
Watson, Thomas W.	Wayne	1st Lt., U.S.A.
Webster, Graham T.	Cleveland	Capt., U.S.A.
Weckesser, E. C.	Cleveland	Capt., U.S.A.
Weinberg, Norman H.	Cincinnati	1st Lt., U.S.A.
Weinblatt, Morris	Toledo	1st Lt., U.S.A.
Weinrich, Robert Joseph	Massillon	Capt., U.S.A.
Weir, David R.	Cleveland	Capt., U.S.A.
Weiser, Richard W.	Cincinnati	Capt., U.S.A.
Weiss, Morris	Cleveland	1st Lt., U.S.A.
Welch, Brent A.	Sidney	Capt., U.S.A.
Wherley, Harold Fredk.	Coshocton	Capt., U.S.A.
Whitman, Jos. J.	Cleveland	Major, U.S.A.
Wilkinson, Herman Edwin	Van Wert	Major, U.S.A.
Williams, Guy H., Jr.	Macedonia	Lt. Comdr., U.S.N.
Williams, Robert Edw.	Barberton	Capt., U.S.A.
Williger, I. F.	Osborn	Capt., U.S.A.
Willis, Benjamin F.	McArthur	Capt., U.S.A.
Wilson, Gerald Newton	Columbus	1st Lt., U.S.A.
Wilson, Judson D.	Columbus	Lt. Comdr., U.S.N.
Wilson, Sloan J.	Columbus	Major, U.S.A.
Wilson, Stewart M.	Columbus	Capt., U.S.A.
Winter, Sherl J.	Dayton	Lt. Comdr., U.S.N.
Wirtz, R. E.	Canton	1st Lt., U.S.A.
Wiseman, George, Jr.	Amherst	Lt., U.S.N.
Witwer, R. G.	Cleveland Heights	Lt., U.S.N.
Wolpaw, B. J.	Cleveland	Lt. Comdr., U.S.N.
Wolpaw, Ralph	Cleveland	Capt., U.S.A.
Wolpaw, Sidney Elmer	Cleveland Hgts	1st Lt., U.S.A.
Wood, Benjamin Joseph	Cleveland	1st Lt., U.S.A.
Wood, Cyrus R.	Port Clinton	1st Lt., U.S.A.
Wood, G. Howard	Leesburg	1st Lt., U.S.A.
Woolpert, Oram C.	Columbus	Major, U.S.A.
Worstell, Henry P.	Columbus	Lt. Comdr., U.S.N.
Wright, Orville M.	Dayton	Lt. (j.g.) U.S.N.
Wynsen, Henry James	Youngstown	1st Lt., U.S.A.
Yaw, Owen F.	Cincinnati	Capt., U.S.A.
Yordy, P. L.	Dayton	Lt. Comdr., U.S.N.
York, Dillard Bennett, Jr.	Columbus	1st Lt., U.S.A.

Name	City	Rank
Yost, Orin R.	Akron	Capt., U.S.A.
Young, John W.	Empire	Major, U.S.A.
Yurick, Edward Andrew	Cleveland	Capt., U.S.A.
Zapolan, Wolfe	Dayton	1st Lt., U.S.A.
Zeiger, Michael Raymond	Cleveland Hgts.	Capt., U.S.A.
Zeigler, Harold C.	Toledo	1st Lt., U.S.A.
Zeithaml, C. E.	Cleveland	1st Lt., U.S.A.
Zeno, Ross R.	Akron	1st Lt., U.S.A.
Zimmerman, Edw. A.	Dayton	Capt., U.S.A.
Zollett, Philip B.	Cleveland	1st Lt., U.S.A.
Zupanec, Ralph	Cleveland	Lt., U.S.N.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 734 Ohio physicians in the armed forces as of April 17 by counties. This list is unofficial. If there are errors of commission or omission, *The Journal* would appreciate receiving corrections:

Adams	1
Allen	8
Ashland	2
Ashtabula	8
Athens	4
Auglaize	3
Belmont	6
Brown	1
Butler	5
Carroll	1
Champaign	3
Clark	8
Clermont	1
Clinton	0
Columbiana	3
Coshocton	2
Crawford	1
Cuyahoga	237
Darke	1
Defiance	0
Delaware	4
Erie	2
Fairfield	1
Fayette	1
Franklin	74
Fulton	1
Gallia	3
Geauga	2
Greene	5
Guernsey	0
Hamilton	65
Hancock	4
Hardin	1
Harrison	0
Henry	0
Highland	2
Hocking	2
Holmes	1
Huron	3
Jackson	0
Jefferson	8
Knox	1
Lake	2
Lawrence	2
Licking	5
Logan	5
Lorain	9
Lucas	42
Madison	2
Mahoning	23
Marion	3
Medina	3
Meigs	1
Mercer	3
Miami	1
Monroe	1
Montgomery	41
Morgan	1
Morrow	0
Muskingum	2
Noble	0
Ottawa	5
Paulding	0
Perry	1
Pickaway	3
Pike	1
Portage	0
Preble	1
Putnam	1
Richland	7
Ross	3
Sandusky	2
Scioto	4
Seneca	2
Shelby	1
Stark	17
Summit	40
Trumbull	4
Tuscarawas	4
Union	1
Van Wert	2
Vinton	1
Warren	1
Washington	2
Wayne	4
Williams	1
Wood	4
Wyandot	1
Total	734

Immunization and Vaccination Pamphlets Are Available

The State Department of Health has a limited supply of the pamphlet, "Diphtheria Immunization and Smallpox Vaccination", published by the U. S. Children's Bureau for public-health officials and practicing physicians. This outline of methods recommended for diphtheria immunization and smallpox vaccination is based on reports issued by the American Academy of Pediatrics, American Public Health Association and the U. S. Public Health Service. Requests for copies of the pamphlet should be addressed to Dr. R. H. Markwith, State Director of Health, Columbus.

As announced in the April issue of *The Journal*, page 398, the State Department of Health is cooperating in a nation-wide campaign of immunization against diphtheria and smallpox, the objective of which is the immunization of every child over nine months of age against these two diseases.

Travel Expenses for an Examination Not a Benefit, Court Holds

The reimbursement of a Workmen's Compensation claimant for expenses actually incurred by him in making a trip to take a physical examination for the purpose of determining whether there was a continuing compensable injury or any basis for a claim entitling claimant to further compensation, does not constitute a payment "of compensation or benefits", within the meaning of Section 1465-86, General Code, which provides that "no modification or change of any finding or award . . . shall be made . . . after 10 years from the last payment theretofore made of compensation or benefits awarded on account of injury or death", the Ohio Supreme Court decided March 18, in the case of Covert, Appellee v. Industrial Commission of Ohio, Appellant, No. 28764, (139 O.S. 401).

In this case a claimant's compensation had terminated more than 10 years before filing the application for modification of award, out of which the suit arose, and the Industrial Commission held that it had no jurisdiction of the claim because of the provisions of Section 1465-86. The claimant based his appeal upon a payment which the Industrial Commission had made to him within the 10-year period in order to reimburse him for traveling expenses which he had incurred in making a trip at the request of the Commission for a physical examination for the purpose of determining whether there was a continuing compensable injury. The Belmont County Common Pleas Court in a finding for the plaintiff, held that this payment was a "benefit", and the Belmont County Court of Appeals upheld that decision.

In reversing the decision of the lower courts, the Supreme Court said:

"It is true that the word 'benefits' is rather broad in scope and meaning, but implies clearly something which has been found to be due the claimant by reason of sickness or injury. Such is the common and ordinary meaning and application of the word 'benefits'. A reimbursement is merely a repayment and replacement of money expended. No benefit is to be conferred or contemplated".

There is also an intimation in the opinion that the Supreme Court will uphold the Industrial Commission in its determination that bills for medical and surgical treatment are "benefits", and that the payment of them will extend the 10-year statute. The Court said:

"This case involved no question of medical or surgical treatment or the payment for such services. The trip in question was not for medical or surgical treatment, but only for a physical examination, and the record indicates such examination was directed not with a view to subsequent medical or surgical treatment but only for the purpose of ascertaining whether there was further compensable disability or any basis for consideration of a claim of entitlement to further compensation or benefits".

Plans for Hospitalization of Civilians Injured Through Enemy Action Is Established; Details Outlined

PAYMENT for temporary hospitalization of civilians injured as the result of enemy action has been made possible by a recent agreement between Administrator Paul V. McNutt of the Federal Security Agency and Director James M. Landis of the Office of Civilian Defense. The funds have been allocated to the U. S. Public Health Service by the Federal Security Administrator from funds made available to him from the President's emergency fund. A joint memorandum embodying the details of the program has been issued by Surgeon General Thomas Parran of the U. S. Public Health Service and Dr. George Baehr, Chief Medical Officer of the Office of Civilian Defense.

The plan provides that all hospitals caring for civilian casualties in the event of air raids or other enemy action will be reimbursed by the Federal government at a rate of $3.75 a day. This is the rate of reimbursement established by the Federal Board of Hospitalization for Federal beneficiaries in government hospitals and may be changed as conditions require, it was stated.

ANY HOSPITAL CAN BE USED

Any hospital in the nation, voluntary or governmental, may be used as a casualty receiving hospital in the Emergency Medical Service established by the Medical Division of the Office of Civilian Defense. In addition, certain hospitals and other institutions in "safe areas" may be used as emergency base hospitals for casualties or other patients whom it may be necessary to evacuate from urban hospitals in exposed areas. The new agreement provides that Federally owned equipment may be loaned to the base hospitals and that their staffs will be supplemented by physicians of the region who will be commissioned in the reserve corps of the U. S. Public Health Service. It was emphasized that management and control of all hospitals, both local casualty receiving hospitals and emergency base hospitals, will remain the responsibility of the local or state authorities.

In the establishment of emergency base hospitals, emphasis will be placed on the relative safety of the area and the availability of existing hospitals and other institutions. Hospitals are now being surveyed for this purpose and will be classified on a basis of size, equipment and standards of operation.

WANT BASE HOSPITAL STAFFS

It is proposed to begin immediately the organization of medical staffs for future base hospitals as hospital units affiliated with casualty hospitals similar to the affiliated general hospitals of the Army. The physicians, surgeons, specialists and dentists who are to be commissioned in the Public Health Service Reserve for service in these hospitals will receive rank, pay and allowance equivalent to those of the Medical Corps of the U. S. Army. They will be selected from older age groups, from physicians with disabilities that make them ineligible for military service and from women physicians. As far as possible, they will be assigned to service in the regions in which they live. Because they are to function as balanced professional staffs, they will be recruited from the staffs of civilian hospitals and cleared through the Procurement and Assignment Service.

Regional Medical Officers of O.C.D., who are appointed in the Public Health Service, will be the regional representatives of both agencies for this program. State Chiefs of Emergency Medical Service or their deputies may also be appointed consultants or commissioned in the Public Health Service in order that they may act as state representatives for the two agencies in the organization of emergency hospital facilities and the reimbursement of hospitals for the care of civilian casualties. In the more populous coastal states a full time State Hospital Officer may be needed, who will also be eligible for appointment in the Public Health Service.

STATE HOSPITAL OFFICER

Appointment of a state hospital officer as an official of Emergency Medical Service has been recommended by the Medical Division for densely populated states in the target areas. These areas are principally in the First, Second, Third, Fourth, Eighth and Ninth Defense Regions. A State Hospital officer for Ohio has not been appointed as yet.

The principal function of the hospital officer will be the planning of emergency base hospitals for the reception of civilian casualties and other hospital evacuees. An official memorandum sets forth his duties as follows:

1. To survey the hospitals throughout the state (by excluding those in the exposed cities), to determine how many beds can be put into immediate use in emergency with existing kitchen, laundry, sanitation and other engineering facilities,
   - (a) by clearing patients to their homes
   - (b) by restricting admissions
   - (c) by use of rooms not normally used for patients
   - (d) by rehousing medical and nursing staff

and other hospital personnel outside the hospital

(e) by use of neighboring buildings (schools, hotels, etc.) for patients (or staff)

(f) by extra bed accommodation in temporary structures erected on available grounds adjacent to the hospital.

2. To assist in designating for each casualty hospital or group of hospitals in each exposed city,

(a) the line of evacuation to the base
(b) the transport arrangements
(c) the emergency base hospitals provisionally allotted to each casualty unit.

3. To keep constantly informed of the bed state of every hospital in his area by weekly returns.

4. To advise the Office of Civilian Defense, through the Regional Medical Officer, on the need for providing additional accommodations, e.g., by temporary construction or by converting convalescent homes, hotels, school dormitories or other structures into hospitals.

5. To report to the Regional Medical Officer of the Office of Civilian Defense any exceptional conditions requiring action (e.g., beyond state boundaries, or required by the needs of the military situation) and to forward to him copies of a monthly summary report on the State's emergency hospital program. Where a hospital outside a State boundary is readily accessible for the reception of casualties from an exposed city, this fact should also be noted.

6. To maintain constant touch with the other service departments of the State Defense Council (e.g., evacuation, etc.).

7. To supervise the distribution of medical and hospital supplies under the direction of the State Civilian Defense Property Officer and report any threatened deficiency to the Regional Medical Officer.

8. To supervise staff arrangements for emergency base hospitals and for reception areas.

9. To control movements of medical and nursing staff, as well as of casualties in any situation affecting emergency base hospitals.

The hospital officer must work in close collaboration with the state evacuation authority, the memorandum points out. In addition, he may find it necessary to collaborate with the state officer in charge of institutions for the care of mental patients, if such hospitals are to be used as emergency base hospitals for the reception of casualties and other patients evacuated from urban hospitals. Transport arrangements are to be handled in collaboration with the evacuation authorities of the state and the military authorities of the area.

No Valid Reason to Move A.M.A. Atlantic City Session Inland

There is no valid reason for moving the Annual Session of the American Medical Association, scheduled for June 8-12 at Atlantic City, to any inland city because of the war, *The Journal* of the Association has been advised by Robert P. Patterson, Under Secretary of War. An editorial in its April 4 issue says:

"Several Fellows of the American Medical Association have suggested that the Atlantic City session might be removed to the interior of the country because of the possibility of increased danger on the sea coast. To obtain an official expression of opinion on this point, the editor of *The Journal* consulted Robert P. Patterson, Under Secretary of War, in Washington. Mr. Patterson writes:

"Dear Dr. Fishbein:

"I have your letter of March 23 raising the question as to whether it would be advisable to move the convention of the American Medical Association away from Atlantic City.

"I know of no valid reason why this convention should not be held in Atlantic City. The partial blackout of that city has been ordered to provide safer passage of ships which would be silhouetted against the bright lights of the city.

"I want to take this occasion to express my appreciation and that of the War Department for the splendid work that the American Medical Association is doing and will continue to do to aid the Army in the recruitment of physicians who are so badly needed.

Robert P. Patterson,
Under Secretary of War."

"The Atlantic City hotels report many reservations; several leading hotels are already completely reserved. The program is complete, including several special sessions devoted to military medical problems. The Convention Number of *The Journal of the A.M.A.*, giving full details, is scheduled for May 2."

"Requests for hotel reservations should be addressed to Dr. V. Earl Johnson, chairman, hotel committee, 16 Central Pier, Atlantic City.

Open New Offices

Physicians who have recently established new locations in Ohio include the following: Dr. E. T. Sager, Bellefontaine; Dr. M. E. Scheetz, Lafayette; Dr. Edward S. Davis, Gallipolis; Dr. W. W. Renner, Columbus; Dr. R. H. Zeis, Kenton; Dr. N. A. Tillman, Amherst.

Columbus—Franklin County Commissioners have reappointed Dr. Herbert M. Platter a member of the board of trustees of the county tuberculosis hospital.

Big Growth in Hospital Facilities Shown During the Past Year; Interesting Ohio Statistics Found in Report

REGISTERED hospitals in the United States numbered 6,358 in 1941, an increase of 67 over the previous year, according to the Twenty-first Annual Census of Hospitals by the Council on Medical Education and Hospitals of the American Medical Association, published in the March 28 issue of *The Journal of the A.M.A.* The growth of hospital facilities for the past year was the equivalent of one 269-bed hospital for every day, Sundays and holidays included.

The census shows that "The average stay per patient in general hospitals has been reduced from 14 days in 1935 to 12 days in 1941, an average saving of two days per patient. For all the 10,646,947 patients in general hospitals in 1941 the aggregate saving was 58,339 years. Figuring this saving at $4 a day, the cost of hospitalization for each patient admitted was $8 less than it would have been in 1935, the equivalent of a saving of $85,175,576 in hospitalization costs."

DROP IN LENGTH OF STAY

During the period 1935 through 1941 the length of stay in governmental general hospitals dropped from 22 to 18 days and in nongovernmental general hospitals from 11 to 10 days. In general hospitals operated under federal auspices a reduction from 36 to 21 days was made, in those under state auspices from 21 to 18 days, in county hospitals from 20 to 18 days, in city hospitals from 16 to 15 days and in city-county hospitals from 17 to 12 days. In church related hospitals the average stay dropped from 12 to 10 days in the same period and in all nonprofit association hospitals from 11 to 10 days. In hospitals operated and owned by individuals and partnerships the rate remained stationary at eight days. In those operated by corporations for profit it dropped from nine to eight days.

BIG INCREASE IN BEDS

The capacity of registered hospitals amounts to 1,324,381 beds and 66,163 bassinets. There are 98,136 more beds and 4,224 more bassinets than one year ago.

An editorial in the same issue of *The Journal* points out that "the data submitted suggest that the hospitals of this country have never been in better position to meet successfully such demands as may be made."

It is revealed by the census that during the year 11,596,188 patients entered registered hospitals as compared with 10,087,548 in 1940, an increase of 14.95 per cent. This means that patients entered hospitals at the rate of one for each 2.7 seconds day and night throughout 1941, including Sundays and holidays.

AVERAGE CENSUS

The average census of patients in hospitals was 1,087,039, an increase of 60,868 over the previous year. The average occupancy rate in general hospitals was 68.2 per cent compared with 70.3 per cent for the preceding year and the average number of idle beds in general hospitals for 1941 was 169,884, compared with 137,200 in 1940. The occupancy rate of all registered hospitals was 82.1 per cent for 1941 as compared with 83.7 per cent for 1940. However, it is pointed out in the report that "although there was a large increase in number of patients admitted to hospitals during the year, it does not necessarily follow that the rate of occupancy would be higher. Indeed, it appears that because of the rapid turnover of patients—that is, the shorter stay per patient—the rate of occupancy is not much greater than in previous years.

One person for each 11 in the United States entered a hospital as a patient in the year 1941, using the 1940 census and counting only bed patients.

The report points out that the list of registered hospitals omits additions to hospital facilities that may have been made by certain departments of the federal government since the publication of the last previous issue of the Hospital Number of *The Journal* on March 15, 1941. However, the statistical data include those on all registered hospital facilities.

TERMS DEFINED

"Registration means the inclusion of the hospital in the list published in the Hospital Number of *The Journal* and in the American Medical Directory," the report explains. "The Essentials of a Registered Hospital are employed in such a way as to raise the standards of hospitals and to point the way to better service.

"Approval, on the other hand, means specific endorsement of hospitals for educational purposes, the fitness for which is determined by observation, inspection and comparison with definite requirements for intern training and residencies.

"Registration is a basic recognition, extended to all the hospitals and related institutions concerning which the Council has no evidence of irregular or unsafe practices. Approval is designation of certain registered institutions by the Council for internships, residencies and fellowships; or by the American College of Surgeons as unconditionally meeting its minimum standards. . . .”

During 1941 federal hospitals admitted 1,268,112 patients, including those of the Veterans Administration, Army, Navy, Public Health Service, the Departments of Justice and of Indian Affairs, the Tennessee Valley Authority and the National Youth Administration. The average census of patients in federal hospitals was 118,890.

MORE STATE HOSPITALS

The number of state hospitals was 530, an increase of nine during the year, and the capacity was 600,320 beds as compared with 572,079 beds in 1940. They admitted 620,231 patients and the average daily census was 561,620, an increase of 36,957 admissions and of 21,626 in the average daily census over the previous year.

A total of 512 county hospitals are listed for 1941 as compared with 514 in 1940 and the capacity decreased to 98,227 beds. Bassinets, however, showed a slight increase in number, totaling 3,288. Patients admitted to county hospitals were 643,740 as compared with 615,247 for the preceding year while the average census of patients was 83,214 as compared with 87,029 in the previous year.

City hospitals totaled 337 in number, an increase of five over the previous year while the bed capacity increased to 78,060 and bassinets to 5,045. The total number of patients admitted was slightly increased to 999,559 and the average census was reduced from 63,644 in 1940 to 61,019 in 1941.

City-county hospitals were fewer in number, capacity and average census than in 1940, but the number of patients admitted was increased from 126,487 in 1940 to 130,960 in 1941.

Church related hospitals number 993, which is five less than the previous year, but the group shows very substantial increases in its facilities. The other nonprofit hospitals increased in number from 1,903 in 1940 to 1,917 in 1941. The census shows a tendency toward increase in the average size of nongovernmental hospitals rather than in number.

BEDS PER POPULATION

The number of general hospital beds by states varies from 2.1 per thousand population in Utah to eight beds per thousand in Nevada. Other states ranking high in the number of general hospital beds per thousand are: Arizona, 7.4; Wyoming, 6.0; California, 5.9; Massachusetts, 5.9; Washington, 5.8; Colorado, 5.7; Louisiana, 5.7; Florida, 5.1. Ohio’s rate is 3.0.

It is pointed out that the outstanding fact to be observed is that those states which provide few beds are found to have a low rate of occupancy, and, of course, a small proportion of the population making use of hospitals. For example, Utah, with 2.1 general hospital beds per thousand, shows an occupancy rate of 55.3 per cent, and its general hospitals were used by 3.5 per cent of the state population. Nevada, with eight beds per thousand, had an occupancy rate of 63.4 per cent; 12.3 per cent of the population of the state made use of its general hospitals during the year. Oregon, the twenty-fourth state or midway point in number of general hospital beds per thousand, shows an occupancy rate of 73 per cent, and 9.9 per cent of its population entered a general hospital. Average figures for the entire country show 4.1 general beds per thousand of population, an average occupancy of 68.2 per cent and 8.1 per cent of the entire population entering general hospitals as patients. Average occupancy in Ohio during 1941 was 76 per cent.

NO FORMULA PRACTICAL

The report says that the data serve “to emphasize the fact that hospital facilities must be provided not according to any abstract formula but in accordance with the requirements of the people in the community under consideration.”

There were 1,409,940 live births in hospitals during 1941, an increase of 190,448 over the previous year, which is by far the greatest increase recorded in this respect between any two consecutive years. There are nine states in which the number of births in hospitals exceeded 50,000, headed naturally by New York, which reported 180,037 births, followed by Pennsylvania with 112,392, Illinois with 99,997, California with 85,763, Ohio with 82,677, Michigan with 69,670, New Jersey with 60,761, Texas with 59,564 and Massachusetts with 57,642.

For the first time the census obtained data regarding the number of patients operated on in hospitals. During 1941, 5,201,650 patients or 44.86 per cent of those admitted to hospitals were operated on. The report points out that as would be expected the states of New York, Pennsylvania, Illinois, California, Ohio and Michigan, respectively, reported the highest number. Ohio’s percentage was 48.5.

REASONS FOR OMISSION

The report explains that the facilities omitted from the list of registered hospitals are of two types: first, those that follow methods and practices such as are generally recognized as unethical or dangerous and that therefore need complete change of policy before being recommended to the public. Their number at the present time is 542. Their capacity, according to the latest available information is 16,267 beds, or less than two thirds of 1 per cent of the facilities furnished by the hospitals recognized in the Register. A second class of facilities not appearing in the Register includes emergency stations, clinics, offices and so on, with some facilities for bed care attached or available. They are recognized as ethical and valuable auxiliary facilities to the hospital system. The bed capacity of these institutions, usually spoken of as unclassified, is too variable to be positively enumerated.

"In January, 1942," the report says, "a survey was made of the facilities for blood and plasma banks in the hospitals approved for internships, residencies and fellowships. Of the 1,070 approved hospitals 462, or 43.2 per cent, reported that such facilities were either in operation or in the process of being established. Some of these institutions also act as manufacturing and distributing centers to supply blood, plasma or serum to other hospitals in the vicinity. The reports also indicated that many hospitals have commercial products on hand to meet emergency needs."

It was found that 206 hospitals maintain both blood and plasma banks, with 17 others in the process of development. In addition there are 171 hospitals operating plasma banks and 33 separate institutions with blood banks. It was reported that nine additional blood banks are being established as well as 26 plasma banks.

OHIO STATISTICS

The Council registered 247 Ohio hospitals in 1941, which is six less than in 1940. Their bed capacity was 57,441, and their average census, 50,510. Bassinets totaled 3,044, and in 1941 a total of 82,677 hospital births was reported in Ohio, compared with 68,814 in 1940. Patients admitted in 1941 numbered 550,668. In 1940 the total was 487,022. There were 27,448 deaths in Ohio hospitals in 1941, with 6,954 autopsies reported.

Ohio hospitals are classified by control as follows: Federal, 8; state, 23; county, 26; city, 19; church, 43; nonprofit associations, 101; individual and partnership, 15; and corporation, 12.

Classification of Ohio hospitals by type of service is as follows: general, 152; nervous and mental, 28; tuberculosis, 23; maternity, 8; industrial, 1; eye, ear, nose and throat, 1; children's, 4; orthopedic, 3; isolation, 1; convalescent and rest, 6; hospital departments of institutions, 18; others, 2.

The report includes a table showing the number of interns and residents in approved hospitals, by states. In Ohio's 52 approved hospitals there are now 350 interns, 169 assistant residents, 202 residents and 61 fellows. The totals for 1,070 approved hospitals in the United States are 7,219 interns; 2,036 assistant residents; 3,311 residents and 802 fellows.

APPROVED FOR INTERNSHIP

The following Ohio hospitals, numbering 38, are approved for internship: City, Peoples and St. Thomas Hospitals, Akron; Aultman and Mercy Hospitals, Canton; Bethesda, Christ, Cincinnati General, Deaconess, Good Samaritan, Jewish and St. Mary Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Fairview Park, Mt. Sinai, St. Alexis, St. Luke's, St. Vincent's Charity, Woman's, and University Hospitals, Cleveland; Mt. Carmel, St. Francis, Starling Loving University and White Cross Hospitals, Columbus; Huron Road Hospital, East Cleveland; Good Samaritan, Miami Valley and St. Elizabeth's Hospitals, Dayton; Memorial and St. Rita's Hospitals, Lima; City Hospital, Springfield; Lucas County, Mercy, St. Vincent's and Toledo Hospitals, Toledo; Youngstown and St. Elizabeth's Hospitals, Youngstown.

APPROVED FOR RESIDENCIES

Hospitals in Ohio approved for residencies in specialties number 40. They are: Children's People's, City and St. Thomas Hospitals, Akron; Mercy Hospital, Canton; Christ, Children's, Cincinnati General, Deaconess, Good Samaritan, Hamilton County Tuberculosis, Jewish, Longview State Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Fairview Park, Glenville, Mt. Sinai, St. Alexis, St. John's, St. Luke's, St. Vincent's Charity, and University Hospitals, Cleveland; Children's, Columbus State, Starling Loving University Hospitals, St. Francis, Franklin County Sanatorium, Grant, and White Cross Hospitals, Columbus; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; General Hospital, Mansfield; Massillon State Hospital, Massillon; Lucas County General, and St. Vincent's Hospitals, Toledo; Cleveland Tuberculosis Sanatorium, Warrensville; Harding Sanitarium, Worthington, and St. Elizabeth's and Youngstown Hospitals, Youngstown.

Detailed information concerning individual residencies was published in the October, 1941, issue of *The Ohio State Medical Journal*, pages 1000-1001.

PATHOLOGICAL TRAINING

The Report of the Council contains a list of schools approved for training clinical laboratory technicians. The list includes the following in Ohio: City Hospital, Akron; St. Thomas Hospital, Akron; Good Samaritan Hospital, Cincinnati; Mt. Sinai Hospital, Cleveland; University Hospitals, Cleveland; Mt. Carmel Hospital, Columbus; Starling Loving University Hospital, Columbus; White Cross Hospital, Columbus; Huron Road Hospital, East Cleveland; Mercy Hospital, Toledo; Toledo Hospital, Toledo; Youngstown Hospital, Youngstown.

Cincinnati—Dr. Herman J. Nimitz has resigned as superintendent of the Hamilton County Tuberculosis Hospital. He is a major on the staff of Base Hospital No. 25, being organized for the U. S. Army by Cincinnati General Hospital.

In Memoriam

Paul John Alspaugh, M.D., Dennison; Starling Medical College, Columbus, 1906; aged 64; member of the Ohio State Medical Association; Fellow of the American Medical Association and member of the American Psychiatric Association; died March 10. Dr. Alspaugh practiced in Dennison for 22 years. He was previously assistant superintendent of the Massillon State Hospital for nine years. Dr. Alspaugh was a member of Medical Advisory Board No. 12 for State Selective Service. He was a member of the Masonic Order, the Elks Lodge, Lions Club and the local Chamber of Commerce. Two sisters survive.

Irwin H. Alexander Bottenhorn, M.D., D.D.S., Columbus; Ohio State University College of Dentistry, 1906; Ohio State University College of Medicine, 1909; aged 59; died April 18. Dr. Bottenhorn practiced medicine in Laurelville for a few years. He became an instructor in the dental college in 1911, and since 1925 had been professor of oral pathology and diagnosis. A former president of the Columbus Dental Society, Dr. Bottenhorn was also a member of the Ohio State Dental Society and the American Dental Association, and a Fellow of the International College of Dentists. His widow, a daughter, a sister and two brothers survive.

Edward Carrol Buck, M.D., Cleveland; Ohio State University College of Medicine, 1908; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 5. Dr. Buck had been Dean of the Cleveland College of Embalming since 1932. He was previously professor of anatomy at Ohio State University College of Medicine for 24 years. Dr. Buck was a member of the Masonic Order and Nu Sigma Nu. His widow, a daughter and three sons survive.

Leroy S. Colter, M.D., Cincinnati; Miami Medical College, Cincinnati, 1888; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died March 23. Dr. Colter retired ten years ago after having practiced in Cincinnati for nearly 45 years. He was head of the obstetrical staff for Christ Hospital for many years. Dr. Colter was a charter member of the Cincinnati Automobile Club and served as its secretary for 29 years. He drove the first gasoline automobile to appear on the streets of Cincinnati. Surviving are his widow, and two daughters.

Arthur Hale Gilmore, M.D., Camden; Rush Medical College, University of Chicago, 1893; aged 71; died March 17. Dr. Gilmore practiced in Fair Haven, Eaton, Camden, Preble County until his retirement six years ago. Two sons survive.

Walter Elisha Hatch, M.D., Toledo; Western Reserve University School of Medicine, 1902; aged 69; died March 28. Dr. Hatch had practiced in Toledo since 1926. Surviving are his widow, a daughter, two sons and a brother.

Jesse Myron Hays, M.D., Columbus; Ohio State University College of Medicine, 1924; former member of the Ohio State Medical Association and the American Medical Association; died April 19. Dr. Hays practiced in Columbus for 14 years, prior to his retirement because of ill health in 1938. He was a veteran of World War I. Surviving are his widow, two daughters, a son, his mother, two sisters and two brothers.

Ignatius Michael Jarzynski, M.D., Cleveland; Western Reserve University School of Medicine, 1914; aged 54; died March 10. Dr. Jarzynski practiced in the Newburgh district for 27 years. He was a member of the board of the Cleveland Orchestra and the first chairman of the Polish Cultural Gardens Committee. His widow, a daughter, a son, four sisters and two brothers survive.

Ezra Wainford Longnecker, M.D., Dayton; Medical College of Ohio, Cincinnati, 1884; aged 83; former member of the Ohio State Medical Association and the American Medical Association; died March 5. Dr. Longnecker retired in November, 1940, after having practiced for 56 years. He first located in Indiana and later practiced in Potsdam and Dayton. He was a member of the First Brethren Church, where he taught a Men's Bible Class for many years. His widow, a son, a sister and three brothers survive.

James A. Miller, M.D., Garrettsville; Cleveland University of Medicine and Surgery, 1886; aged 82; died March 8. Dr. Miller retired last year after having practiced in Portage County for 55 years. His widow survives.

Oram A. Nincehelser, M.D., Mechanicsburg; Miami Medical College, 1887; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died April 6. Dr. Nincehelser retired a few years ago because of ill health, after many years' practice in Mechanicsburg. He held a medal in honor of his 50-year association with the Masonic Order.

Leo Edward Price, M.D., Shelby; University of Louisville School of Medicine, 1921; aged 46; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 31. Dr. Price practiced in

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Shelby for 16 years. He was a member of the Masonic Order, Methodist Church, American Legion and Phi Beta Pi. His widow, his mother, a daughter and a son survive.

William Western Warren, M.D., Newport; Columbus Medical College, 1889; aged 74; member of the Ohio State Medical Association and the American Medical Association; died April 4. Dr. Warren practiced in Newport and Washington County for 53 years. His widow, two sons and a sister survive.

Jacob R. Welch, M.D., Spencerville; Fort Wayne College of Medicine, 1882; aged 83; member of the Ohio State Medical Association and the American Medical Association; died March 12. Allen County's oldest practitioner, Dr. Welch practiced in Spencerville for 60 years. He organized the first local National Guard company in May, 1900, and was named captain of the organization. For years Dr. Welch was a member of the local school board, and since 1934 had been president of the Citizens and Farmers Bank. He was a member of the Masonic Order. A daughter survives.

John Ellsworth Witham, M.D., Waynesville; Miami Medical College, Cincinnati, 1889; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died March 11. Dr. Witham practiced in Warren County for 51 years. His widow survives.

Trips To The Altar

Recent marriages of Ohio physicians include the following: Miss Vivian Mae Mullett, Columbus, and Dr. Darrell C. Caudill, Brooklyn, N. Y.; Miss Betty Williams, Charleston, S. C., and Dr. Samuel Gendelman, Manchester; Miss Daisy Westerlund, St. Augustine, Florida, and Capt. John T. Gibbons, Camp Blanding, Florida; Margaret Louise Saas, Walnut Hills, West Virginia, and Dr. Joseph Gilman, Clarksburg, West Virginia; Miss Jean Catherine Curtis, Port Washington, N. Y., and Dr. Clarence Kemper, Cincinnati; Miss Martes Mudd, Yoakum, Texas, and 1st Lt. William M. Kuntz, Leesville, La.; Miss Frances M. Skerjanc and Dr. Harold V. Marley, Cleveland; Miss Florence Olsavsky and Dr. Rufus P. McCormick, Cleveland; Miss Neoma Belinky and Dr. Joel S. Ripsteen, Brooklyn, N.Y.; Miss Ruth Driggs and Dr. P. John Robechek, Cleveland; Miss Carol Helen Bettman and Dr. Eugene H. Sterne, Jr. ,Cincinnati; Miss Catherine Moore and Dr. J. K. Herald, Youngstown; Miss Mary McConnell and Dr. John W. Holloway, Cleveland; Miss Harriet Gertrude Peeples and Dr. Robert M. Inglis, Columbus; Miss Dorothy Thomas and Dr. H. W. Wendleken, Cleveland; Miss Phyllis Buerk, Whitehouse, and Dr. Robert Reiheld, Loudonville.

Analysis of Types of War Savings Stamps and Bonds

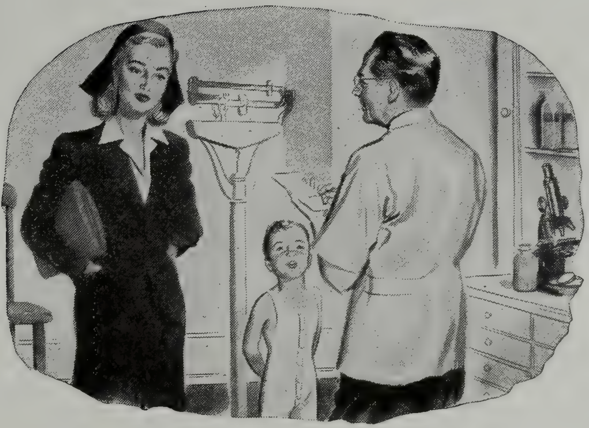
The U. S. Treasury Department has prepared a condensed explanation of the various types of war savings stamps and bonds which will be of interest to physicians who, like all other citizens, are being urged to assist in the war effort by loaning their dollars to the government through the War Savings Program. The high spots of the memorandum are as follows:

"The Treasury Department offers three series of War Savings Bonds: Series E, F and G. Series E Bonds are 'The People's Bonds.' They cannot be purchased by banks or corporations, a restriction adopted so that they will be People's Bonds. These are 'appreciation bonds,' meaning that you buy the bond for less than the amount printed on its face. For example, a $25.00 face value bond costs only $18.75. At the end of the ten year maturity period, the Government pays back to you the full $25.00. This is an increase in value of 33⅓ per cent, equivalent to an average interest rate over the life of the bond of almost 3 per cent—2.9 to be exact. It is the highest interest rate the Government is paying anybody today on new securities.

"The smallest of the People's Bonds costs $18.75 but this is not the smallest amount that can be put into War Savings. Smaller sums of money purchase War Savings Stamps which range in price from 10c to $5.00. Money invested in stamps does not bring interest as do the bonds, but when as much as $18.75 has been invested in them, they can be turned in for one of the registered, interest-bearing bonds. People's Bonds may be purchased at any post office and almost any bank. War Stamps may be obtained at post offices, banks, many retail stores and other locations. Just look for the War Stamps sales window or booth.

"Series F Bonds, like the Series E, are appreciation bonds, but these may be bought by corporations and associations as well as individuals. These are twelve-year bonds, which provide a return equivalent to an annual interest rate of 2.53 per cent. The smallest of this series costs $18.50 and pays $25.00 at the end of twelve years; the largest costs $7,400 and pays $10,000 at maturity.

"The bonds of Series G, unlike those of Series E and F, are sold at par; that is, the cost is the same as their face value. But also unlike Series E and F, Series G Bonds pay interest semiannually at the rate of 2½ per cent throughout their twelve-year maturity period. Bonds of this series are issued in denominations ranging from $100 to $10,000. Only the Treasury and Federal Reserve Banks issue F and G Bonds, but most commercial banks accept applications for them."



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(1) 1926. U. S. Dept. of Commerce, Bureau of Fisheries, Document No. 1000.
1934. U. S. Pub. Health Reports 49, 754.
1937. U. S. Dept. Agr. Misc. Publ. No. 275.
1938. Food Research 3, 549.
1939. U. S. Dept. of Commerce, Bureau of Fisheries Investigational Report No. 41.

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Coming Meetings

American Medical Association, Atlantic City, June 8-12.

American Association for the Study of Goiter, Atlanta, Ga., June 1-3.

American Association for the Surgery of Trauma, Boston, June 4-6.

American Association of Genito-Urinary Surgeons, Hershey, Pa., May 27-29.

American Association of the History of Medicine, Atlantic City, N. J., May 3-5.

American Association on Mental Deficiency, Boston, May 13-16.

American Dermatological Association, Hot Springs, Va., May 31-June 4.

American Heart Association, Atlantic City, June 5-6.

American Laryngological Association, Atlantic City, N. J., May 25-27.

American Laryngological, Rhinological and Otological Society, Atlantic City, N. J., June 1-3.

American Medical Women's Association, Atlantic City, N. J., June 6-7.

American Neurological Association, Chicago, June 4-6.

American Ophthalmological Society, Hot Springs, Va., June 1-3.

American Orthopedic Association, Baltimore, June 3-6.

American Otological Society, Atlantic City, N.J., May 28-29.

American Psychiatric Association, Boston, May 18-22.

American Society for Clinical Investigation, Atlantic City, N. J., May 4.

American Society of Clinical Pathologists, Philadelphia, June 5-7.

American Therapeutic Society, Atlantic City, N. J., June 4-6.

American Urological Association, New York, June 1-4.

Association of American Physicians, Atlantic City, May 5-6.

International College of Surgeons, U. S. Chapter, Denver, July 15-18.

Medical Library Association, New Orleans, May 7-9.

National Gastroenterological Association, New York, June 3-5.

National Tuberculosis Association, Philadelphia, May 6-9.

Society for the Study of Asthma and Allied Conditions, Atlantic City, May 2.

The Eighteenth Scientific Meeting of the American Heart Association will be held June 5-6, at the Chalfonte-Haddon Hotel, Atlantic City. Details of the meeting may be obtained by writing Anna S. Wright, Office Secretary, 1790 Broadway, New York.

Buy Your Coal Now to Help in Preventing Transportation Bottleneck!

Attention of Ohio physicians is called to the request of Howard A. Gray, Coordinator of Solid Fuels, Washington, D.C., that all consumers of coal anticipate their future needs and stock up now to the fullest possible extent. An organized movement to stimulate interest in this request has been launched through the cooperative efforts of chambers of commerce, professional and trade associations, farm organizations, state and local governmental officials, consumer groups and other interested organizations. It applies to private homes, industry, public institutions, apartment houses and commercial buildings. Similar campaigns are being conducted in the other states at the request of Coordinator Gray.

There is no shortage of coal itself nor will there be. However, it is anticipated that by midsummer there may develop a transportation shortage due to the demands upon the railroads to haul the war materials coming out of the big auto plants, armament works and munition plants and a possible shortage of trucks and tires for trucks. Future bottlenecks in transportation by railroads and ships can cause such a stringent condition in the distribution of coal that before the year is out it might become necessary to ration or at least put coal distribution under government control. Coordinator Gray is quite anxious to avoid such control and feels that it can be avoided if the coal consumers will use every sensible method to cooperate.

War Problems Discussed at Meeting of Second District at Dayton

Dr. Robert Conard, Wilmington, chairman of the Committee on Medical Preparedness of the Ohio State Medical Association, and Charles S. Nelson, Executive Secretary, explained the Procurement and Assignment Service for Physicians at a dinner meeting of officers and members of committees on medical preparedness of county medical societies in the Second Councilor District, April 8, at the Engineers' Club, Dayton. The meeting was called by Dr. D. W. Hogue, Springfield, Councilor for the District, and Dr. C. I. Stephen, Ansonia, president. Approximately 50 physicians attended. New officers elected were: President, Dr. Roy Binkley, Dayton; secretary, Dr. G. A. Woodhouse, Pleasant Hill; and treasurer, Dr. H. H. Hanning, Dayton.

Cleveland—"Facial Plastics", was the topic discussed by Dr. Arnold F. Sydow at a meeting of the science teachers of the Cleveland Public Schools. The lecture was one of a series sponsored by the Cleveland Academy of Medicine and the Board of Education.

Women and Defense

As in the last war, American women are proving that they can do immeasurably more than "keep the home fires burning". Their part in the defense industries, in the field of nursing, in the various branches of civilian defense, in buying Defense Bonds, and in generally helping to maintain an unconquerable national morale and unity is truly magnificent. . . . The importance of sensible personal care during these days of strain and tension cannot be overestimated. A fresh, well-groomed appearance adds to our sense of personal fitness and helps to bolster morale. . . . In these days there is no excuse for primping; money should not be wasted on needless luxuries. But we submit that necessary aids to good grooming, carefully selected and used economically, are indispensable. . . . Today, overalls and uniforms add a patriotic and therefore glamorous touch to the renowned loveliness of American women. . . . For Defense Buy United States Savings Bonds.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

Dr. W. Selden Hamilton, Cincinnati; Dr. R. L. Lawwill, Seaman, and Dr. S. B. Sonkin, West Union, were guest speakers at a meeting of the Adams County Medical Society, April 15, at West Union.—News clipping.

BUTLER

"Physicians and the War", was the theme of a program presented at a meeting of the Butler County Medical Society, March 26, at the Middletown Hospital. Subjects presented and the discussion leaders follow: "Treatment of War Injuries to the Skull and Face", Dr. Charles T. Atkinson, Middletown; "Treatment of War Injuries to the Chest", Dr. Donald M. Blizzard, Middletown, and Dr. Azel Ames, Hamilton; "Treatment of Wounds of the Soft Parts", Dr. E. O. Bauer, Middletown; "Treatment of Fractures", Dr. Blizzard and Dr. H. M. E. Lowell, Hamilton; "Treatment of Burns", Dr. Vernon E. Roden, Hamilton; "Prevention and Treatment of Shock", Dr. Walter A. Reese, Middletown. In addition, the organization and functions of the Medical Department of the United States Army and Navy, Procurement and Assignment Service and the local Civilian Defense situation were discussed by Dr. L. H. Skimming and Dr. Wm. H. Henry, Middletown.

The Woman's Auxiliary celebrated its first anniversary with a dinner at the Anthony Wayne Hotel, April 15, at which husbands of the members were guests. Dr. Gustav Eckstein of the University of Cincinnati College of Medicine was the speaker. Mesdames Frechtling, Keating, Marr, Roden and Brown were hostesses.—Fred W. Brosius, president, Butler County Medical Society.

CLERMONT

Dr. Robert Conard, Wilmington, chairman of the Committee on Medical Preparedness of the Ohio State Medical Association, spoke on "Doctors and the War", at a dinner meeting of the Clermont County Medical Society, March 18, at the home of Dr. Allen Rapp, Owensville.—News Clipping.

CLINTON

The regular monthly meeting of the Clinton County Medical Society was held at the General Denver Hotel, Wilmington, April 7. The guest speaker, Dr. James H. Warren, Columbus, presented a very interesting paper on "Undulant Fever". Chairmen of the Medical Preparedness and Civilian Defense Committees reported the progress of their work. It was decided that the next meeting would be devoted entirely to Civilian Defense Organization and Preparedness.—James E. Rose, M.D., Secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during April:

April 7—Good Samaritan Hospital Meeting. "Uretero-Vesical Avulsion with Vesico-Peritoneal Rupture and Multiple Fractures", Dr. John A. Fisher and Dr. Carl J. Hochhausler; "A Case of Spinal Aneuryism", Dr. Frank H. Mayfield and Dr. Thomas A. Weaver, Jr.; "Erythroblastosis—Two Cases", Dr. Hochhausler; "Intestinal Obstruction Without Previous Surgery", Dr. Joseph L. DeCourcy; "Acute Infectious Mononucleosis", Dr. Leo A. Smyth; "Thirty-Six Hour Acute Perforation of Duodenal Ulcer, Treated by Closure and Sufanilamide", Dr. Lloyd B. Johnston.

April 14—Joint Meeting with American Association of Industrial Physicians and Surgeons. Symposium on "Medical Service for the Small Plant". Speakers: Ernest Mueshleck, Ambler, Pa.; Donald E. Cummings, Denver; Dr. Charles F. Long, Philadelphia; Dr. A. L. Kefauver, assistant supervisor, Medical Section, State Industrial Commission; discussion lead by Dr. Victor Heiser, New York City.

April 21—"Endocrine Syndromes in Children", Dr. Joseph Warkany, assistant professor of pediatrics, University of Cincinnati College of Medicine.—Bulletin.

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The Woman's Auxiliary held a meeting at the Women's Club, March 16, with Mrs. W. W. H. Curtiss, Dennison, President of the Woman's Auxiliary to the Ohio State Medical Association, and members of the Woman's Auxiliary to the Butler County Medical Society, as guests of honor. Dr. R. B. Speckman, assistant professor of medicine, University of Cincinnati College of Medicine, spoke on "Heart Disease".—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MIAMI

"Allergy and Its Relation to the General Practitioner", was the subject discussed by Dr. Carl D. Marsh, Springfield, at a meeting of the Miami County Medical Society, April 3, at Stouder Hospital, Troy. A motion picture, "Treatment of Burns", by Dr. G. C. Penberthy, Detroit, was shown through the courtesy of The Davis and Geck Co.—George A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Warren T. Vaughn, Richmond, Va., spoke on "Allergy, The Intruder", at a meeting of the Montgomery County Medical Society, April 3, at Dayton.—E. McCall Smith, M.D., president.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

The Lima and Allen County Academy of Medicine held a dinner meeting at the Lima District Tuberculosis Hospital, April 20. Dr. H. H. Bruckner discussed "Tuberculosis, Its Pathology, Diagnosis, and Treatment."—Chester Badertscher, M.D., secretary.

MARION

Mrs. H. K. Mouser is the president of the recently-organized Woman's Auxiliary to the Marion Academy of Medicine. Other officers are: Mrs. J. A. Dodd, vice-president; Mrs. J. M. Miller, secretary, and Mrs. Clovis Altmaier, treasurer.—News clipping.

SENECA

Mrs. Johana White, Columbus, gave an interesting talk on "Past and Present Conditions in Denmark", at a joint dinner meeting of the Seneca County Medical Society and the Woman's Auxiliary, March 18, at Fostoria.

Dr. A. P. R. James, Toledo, made an excellent and very instructive address on "Skin Diseases", at a meeting of the society, April 9, at Tiffin. There were 21 members present.—N. E. Williard, M.D., secretary.

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Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during April:

April 3—"The Clinical Use of Stilbestrol", Dr. M. Edward Davis, associate professor of obstetrics and gynecology, University of Chicago.

April 10—Section of Pathology, Experimental Medicine and Bacteriology. "Clinical and Pathological Manifestations of Common Disorders", Dr. A. A. Fink and Dr. Max T. Schnitker.

April 17—Medical Section. "Clinical Observations on Post-Operative Thyroid States, Cardiac Diseases, Exophythalmos, Myxoedema and Tetany", Dr. L. A. Levison, with discussion by Dr. F. M. Douglass, Dr. R. E. Boice and Dr. F. C. Clifford.

April 24—"Surgery in Patients with Jaundice", Dr. Max M. Zinninger, associate professor of surgery, University of Cincinnati College of Medicine.—Bulletin.

Dr. Edward J. McCormick, President-Elect of the Ohio State Medical Association, spoke on "Socialized Medicine", at a meeting of the Woman's Auxiliary, March 31, at the Toledo Woman's Club.—News clipping.

SANDUSKY

Dr. K. C. McCarthy, Toledo, was the guest speaker at a meeting of the Sandusky County Medical Society, March 27, at Memorial Hospital, Fremont. He told some of his experiences while on duty last year as an anesthetist in American Hospital in England.—Harold L. Keiser, M.D., secretary.

WOOD

The Wood County Medical Society held its regular dinner meeting at the Women's Club Building, Bowling Green, March 10. Dr. H. J. Powell, Wood County health commissioner, discussed the matter of immunizing the children against smallpox and diphtheria and presented the board's plan of furnishing the material without charge if the physicians would make the inoculations. The membership agreed to cooperate in carrying out this plan.

Continuing President's Boyle's program of presenting material germane to the war effort, the papers of the evening were read by Dr. Barney J. Hein, Toledo, on "Care of War Fractures" and Dr. Howard Holmes, Toledo, on "Tuberculosis Case Findings in War Service." Dr. Hein gave a resume of the recent developments in caring for fractures in a military program. The use of sulfanilamide and sulfathiazole in compound fractures was discussed, as well as other recent procedures. Dr. Holmes described the routine of examination designed to find the tuberculous patient among the selectees for military service. He mentioned the extensive use of

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OPHTHALMOLOGY—Two Weeks Intensive course will be offered starting September 28th. Five weeks course in Refraction Methods starting October 19th. Informal Course every week.

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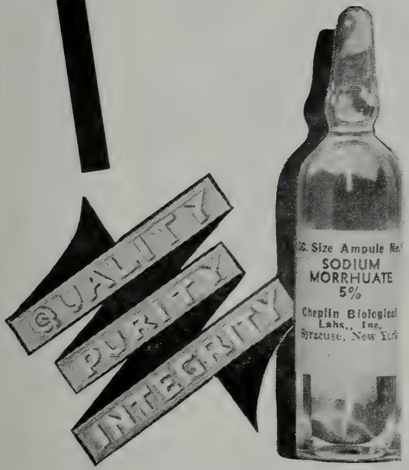

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the X-ray and fluoroscope in detecting these cases and the type of lesion found in rejected personnel. The papers did much to acquaint the members with medical-military approach to disease and injury, and a rising vote of thanks was tendered the essayists.—D. R. Barr, M.D., correspondent for *The Journal.*

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during April:

April 3—Clinical and Pathological Section. Case Reports. "Sporotrichosis Simulating Tularemia", Dr. Eugene Arday; "Aneurysm of Splenic Artery with Rupture Into Stomach", Dr. D. S. Spreng; "Multiple Benign Adenomatous Polypi of Stomach; Gastrectomy", Dr. J. A. Groh; "Chondromyxosarcoma of Rib with Surgical Removal", Dr. F. S. Gibson; "Endocarditis Lenta Limited to the Pulmonic Valve", Dr. Myron August; "Malignant Adenoma of Thyroid with Ten-Year Period of Latency", Dr. W. S. Humphries.

April 8—Medical Practice Section. "The Peripheral Vascular System", Dr. E. F. Bright; "Allergic Conditions", Dr. K. D. Figley, Toledo; "The Duration of Life", Dr. J. A. Doull; "The Heart", Dr. J. T. Wearn; "Featuring Al Kohl and Nicotina", Dean Torald Sollmann.

April 10—Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. Subject: "Body Electrolyte and Water Exchange in Experimental and Clinical Dehydration and Hydration". "Introduction: Methods of Study and General Interpretations", E. Muntwyler, Ph.D.; "Role of Desoxycorticosterone Acetate in Fluid Balance", D. M. Harkness, B.S.; "Relation Between Plasma Volume and Extracellular Volume", Dr. F. R. Mautz; "Plasma Protein and Hematrocrit as Indices of Dehydration in Experimental Intestinal Obstruction", R. C. Mellors, Ph.D.; "Clinical Cases Illustrating Problems in Fluid Balance", Dr. W. E. Abbott.

April 17—Academy Meeting. "Problems in Aviation Physiology", Major D. B. Dill, M.C., U. S. Army, Wright Field, Dayton.

April 22—Obstetrical and Gynecological Section. "Infections of the Female Urethra and Treatment", Dr. A. G. Sar-Louis; Technical Motion Picture, "Sex Hormones, Physiology, Diagnosis and Therapy".—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

The Fifteenth Annual Postgraduate Day of the Mahoning County Medical Society was presented at the Pick-Ohio Hotel, Youngstown, April 15.

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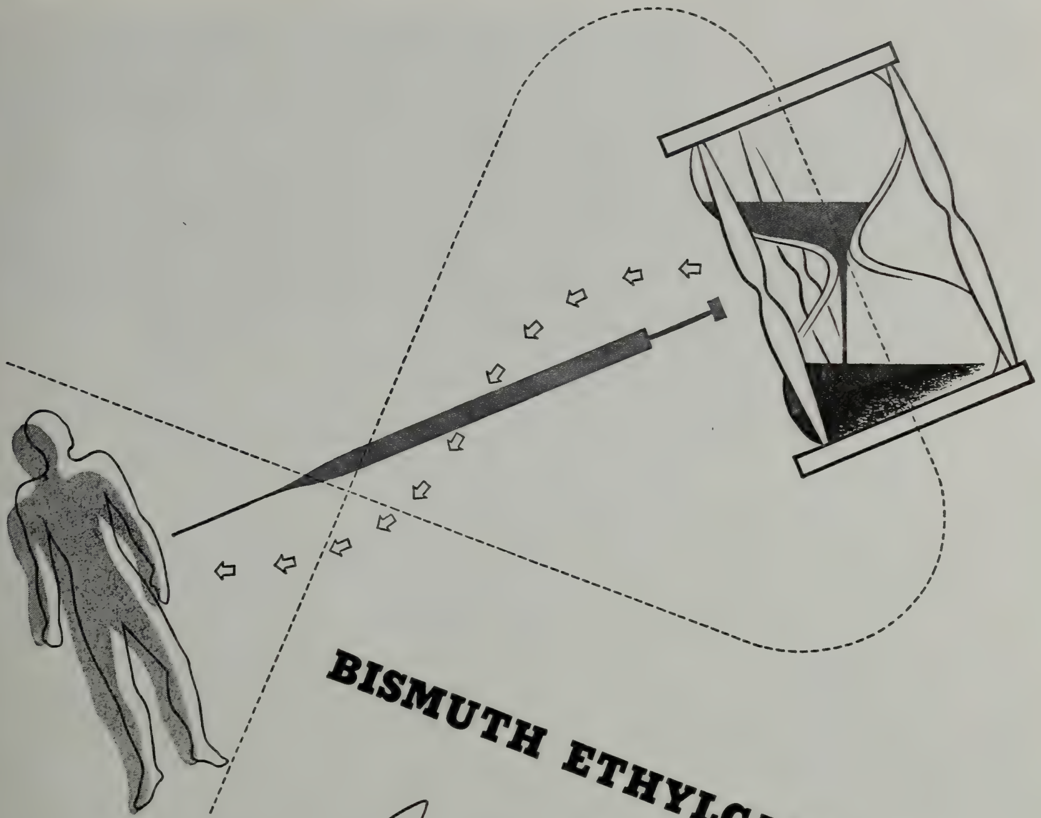

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The speakers were the following members of the faculty of Northwestern University Medical School, Chicago: Dean J. Roscoe Miller; Dr. J. R. Buchbinder, associate professor of surgery; Dr. Harry Culver, associate professor of urology; Dr. Paul S. Rhoads, assistant professor of medicine, and Dr. George H. Gardner, assistant professor of obstetrics and gynecology. (The program was published in the April issue of *The Journal*, page 383.)

Dr. Gardner addressed the Woman's Auxiliary on the subject "Why Menstruation", Wednesday afternoon, April 15, at the First Christian Church, Youngstown.—Bulletin.

PORTAGE

"Renal Calculi Due to Sulfonamides", was the subject discussed by Dr. Walter A. Keitzer, Akron, at a meeting of the Portage County Medical Society, April 9, at Robinson Memorial Hospital, Ravenna.—Emily J. Widdecombe, M.D., secretary.

STARK

Dr. Harry V. Paryzek, Cleveland, President of the Ohio State Medical Association, spoke on "The Role and Duties of Physicians in the War", at a meeting of the Stark County Medical Society, April 9, at the Elks Club, Canton.—Harold J. Bowman, M.D., secretary.

Fifty members of the Woman's Auxiliary met at the Canton Art Institute March 9. The guest speaker, Colonel William E. Hall, spoke on the Philippines and showed motion pictures of the natives there.—News clipping.

SUMMIT

Dr. Wyman C. C. Cole, Detroit, spoke on "Obstetrical Anesthesia and Its Effect on the Newborn", at a meeting of the Summit County Medical Society, April 7, at the Mayflower Hotel, Akron.

At a meeting of the Woman's Auxiliary, April 7, at the City Hospital Nurses' Home, Paul Hunt of the staff of radio station WJW gave a book review of Pearl Buck's latest novel, "Dragon Seed".—Bulletin.

TRUMBULL

Chief D. M. Olds, scout executive of the Boy Scouts of America, gave a splendid address on "Civilian Defense", at a luncheon meeting of the Woman's Auxiliary to the Trumbull County Medical Society, March 10, at the Hotel Warner, Warren.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

HARRISON

Dr. G. E. Vorhies, Scio, was host to the Harrison County Medical Society, April 15, at the General Custar Hotel, Cadiz. Dr. Carl Goehring

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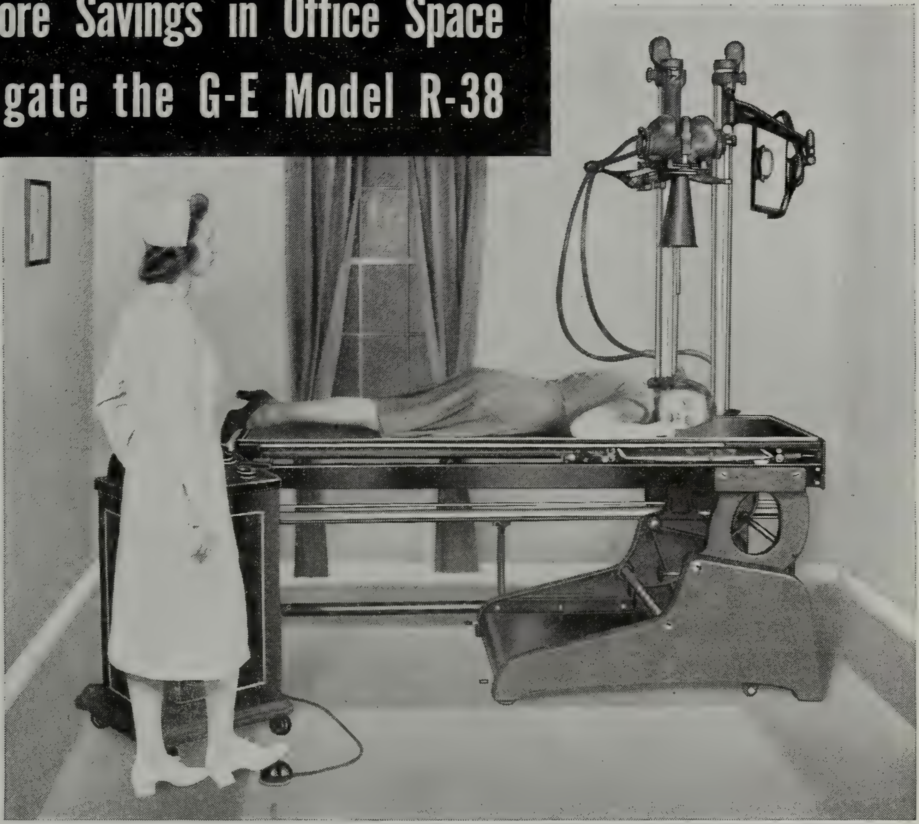

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and Dr. John Y. Bevan, Steubenville, were guest speakers.—F. Foster Dye, M.D., secretary.

TUSCARAWAS

Mrs. H. A. Coleman, New Philadelphia, gave an excellent review of "Medicine Marches On", for members of the Woman's Auxiliary to the Tuscarawas County Medical Society, when they met at the home of Mrs. S. H. Winston, Dover, on the evening of March 12.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. Earl H. Baxter, professor of pediatrics, Ohio State University College of Medicine, spoke on "Routine Care of Children in the First Year", at a meeting of the Athens County Medical Society, April 7, at Athens.—C. R. Hoskins, M.D., secretary.

GUERNSEY

"Home Obstetrics," was the topic discussed by Dr. M. C. McCuskey, Senecaville, at a luncheon meeting of the Guernsey County Medical Society, March 19, at the Berwick Hotel, Cambridge.

Dr. Paul O. Huth spoke on "Surgery of the Gallbladder", at a meeting of the society, April 2, at the Berwick Hotel, Cambridge.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

The home of Dr. and Mrs. A. L. Test, Portsmouth, was the scene of a surprise party, Thursday evening, April 2, when the members of the Hempstead Academy of Medicine gathered there to celebrate Dr. Test's 78th birthday.

Mrs. Fanny Cole Anderson, probation officer for the Scioto County Juvenile Court, was guest speaker at a meeting of the Woman's Auxiliary, April 8, at the Portsmouth General Hospital.—News clipping.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

"The War and the Doctors", was the subject of an address made by Dr. Robert Conard, Wilmington, at a meeting of the Fayette County Medical Society, April 2, at Washington C. H. Dr. Conard is chairman of the Ohio Committee on Procurement and Assignment of Physicians.—News clipping.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during April:

April 6—"The Physician and a Controlled Plan for Medical Indigent Relief Administration", Dr.

Barry

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April 20—"Chronic Gastritis: Etiology, Diagnosis and Treatment", Dr. Philip T. Knies and Dr. Clark P. Pritchett.

Dr. Emmerich von Haam, professor of pathology, Ohio State University College of Medicine, presented a pathological exhibit preceding each meeting.—Bulletin.

Dr. Frances K. Harding, Worthington, was guest speaker at a meeting of the Woman's Auxiliary, March 16, at the Columbus Gallery of Fine Arts.—News clipping.

MADISON

Dr. C. C. Sherburne, Columbus, spoke on "The Newer Sulfonamide Drugs", at a meeting of the Madison County Medical Society, March 26, at the home of Dr. F. A. Lutz, Mt. Sterling.—News clipping.

ROSS

"Newer Procedures in the Diagnosis of Gastrointestinal Diseases", was the topic presented by Dr. Philip T. Knies, Columbus, at a meeting of the Ross County Academy of Medicine, March 5, at the Warner House, Chillicothe.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

LORAIN

Dr. Harry V. Paryzek, Cleveland, President of the Ohio State Medical Association, spoke on "The Medical Procurement and Assignment Procedure in the Present National Emergency", at a meeting of the Lorain County Medical Society, April 14, at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

WAYNE

Wives of members of the Wayne County Medical Society were guests of their husbands at a dinner meeting of the society, March 27, at Orrville. The program was to have revolved around a talk by Dr. R. C. Paul, Wooster, on his 50 years in the practice of medicine, but illness prevented Dr. Paul from attending the meeting. The "Four Roses" quartet, composed of four members of the faculty of Wooster College, sang several numbers. Dr. Edward C. Heyde, Wooster, played some violin selections, accompanied by his wife at the piano. Dr. J. J. Sutter, Wayne County health commissioner, read communications from the State Department of Health relating to its program for diphtheria immunization, smallpox vaccination and treatment of venereal disease. Wives of the members voted in favor of forming a Woman's Auxiliary. Dr. Ward Fritz, former Wooster physician and now a major in the Medical Corps of the U. S. Army, and Mrs. Fritz were guests at the dinner.—R. C. Paul, M.D., secretary.

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The Physician's Bookshelf

Woman's Personal Hygiene. Leona W. Chalmers ($2.00. *Pioneer Publications, Inc., 1790 Broadway, New York City)*, has been put forth to answer a large number of questions which came to the author's desk upon the appearance of her previous book, "The Intimate Side of a Woman's Life". Here, as in that book, a great deal of emphasis is placed upon bathing and douching. Very attractive and informative photographs serve to illustrate points of technique.

The Advancing Front of Science, by George W. Gray ($3.00. *Whittelsley House, New York City)*, is a collection of essays most of which have appeared in *The Atlantic Monthly*. Mr. Gray is the outstanding popular science writer. This book is done with intelligence and skill in a manner that is satisfactory both to the scientist and to the reader. Its 17 chapters cover those salients at which advances have been made during the last decade.

Physiological Psychology, by S. R. Hathaway, Ph.D. ($2.75. *D. Appleton-Century Co., New York City)*, provides accurate simple functional anatomy for students on psychology. An excellent text for the physician who wants to review his anatomy and brush up on psycho-somatic relationships.

From Infancy Through Childhood, by Louis W. Sauer, M.D. ($2.00. *Harper & Bros., New York City)*, is a book of practical help and wisdom for the modern mother, giving her specific advice on health, feeding and training, and is an authoritative guide to the best possible start in life for her child.

Communicable Disease Nursing, by Theresa A. Lynch, R.N., ($3.75. *Mosby, St. Louis, Mo.)*, is a textbook on the subject for modern hospitals. Not only does it present the technical phases of communicable disease nursing, but it also shows the part the nurse may play in a community in preventing and controlling such diseases.

Conquest of Bacteria From Salvarsan to Sulphapyridine, by F. Sherwood Taylor, ($2.00. *Alliance Book Corp., 212 Fifth Avenue, New York City)*, by one of Britain's most successful popular science writers. It belongs in the class of the best type of popular books on scientific subjects, presenting Chemotherapy in an accurate and easily understood manner.

Attention! To Your Health, by Ernest A. Stewart, Jr. (35c. *Bureau of Publications, Teacher's College, Columbia University, New York)*. This is the second of a series of pamphlets prepared to assist the young men in anticipation of selection into our nation's military service. It introduces the selectee to all phases of the health problems to which he should direct his attention.

Marriage for Moderns, by Henry A. Bowman ($4.00. *McGraw-Hill Publications in Sociology, New York City)*, emphasizes that successful marriage just does not happen but is a creative achievement. To this end a sound, sensible discussion of reasons for marriage, age for marriage, choosing a mate, courtship, honeymoon, personality adjustments, the use of money and leisure time and family planning, are all discussed in a sane, sensible fashion. While this is a textbook growing out of the marriage court at Stephens College, it is also an excellent manual.

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Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

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Next Medical Board Examinations To Be Given June 16-19

Mid-summer examinations of the State Medical Board will be held at Columbus, June 16-19, the Board decided at a meeting in Columbus, April 7. Other business transacted at the meeting included the suspension of the license to practice medicine and surgery in Ohio of Dr. Ralph B. Brown, Columbus, who was convicted of violating the Federal Narcotic Laws.

Licenses to practice medicine and surgery in Ohio were granted 21 physicians through endorsement of their licenses in other states. They are: Dr. Ernest Z. Bower, Temple University School of Medicine; Dr. Frank D. Crosby, University of Michigan Medical School; Dr. Rubin H. Flocks, John Hopkins University School of Medicine; Dr. Elizabeth Franklin, University of Tennessee College of Medicine; Dr. Leo E. Froomess, McGill University Faculty of Medicine; Dr. Frederick S. Gardiner, McGill University Faculty of Medicine; Dr. Paul V. Graham, University of Louisville School of Medicine; Dr. Foster Hampton, Jr., University of Tennessee College of Medicine; Dr. Benjamin S. Kline, Johns Hopkins University School of Medicine; Dr. Paul B. Leffler, University of Kansas School of Medicine; Dr. Howard T. Molony, University of Louisville School of Medicine; Dr. Darwin M. Nelson, University of Michigan Medical School; Dr. Titus M. Perry, Meharry Medical College; Dr. John Romano, Marquette University School of Medicine; Dr. Henry W. Ryder, University of Chicago Medical School; Dr. Robert W. Schneider, University of Wisconsin Medical School; Dr. David Shapiro, University of Sheffield Faculty of Medicine; Dr. Mildred Stanley, University of Texas School of Medicine; Dr. Jeanne H. Stephens, University of Michigan Medical School; Dr. John J. Terrall, Harvard University Medical School; Dr. Alexander A. Weech, Johns Hopkins University School of Medicine.

Upjohn Company Executive Dead

Malcolm Galbraith, vice president and director of sales of the Upjohn Company, died Friday morning, April 10, in Kansas City. Mr. Galbraith was born in Bowmanville, Ontario, Canada, October 23, 1876. He received his bachelor of pharmacy degree at Ontario College of Pharmacy in 1898, entering the drug business in Ontario the same year. He later became a naturalized citizen of the United States. In 1909 he left the H. K. Mulford Company, of Philadelphia, to join the Upjohn Company. In October, 1929, he was elected to the board of directors and named director of sales. He was made vice president of the company in May, 1936.

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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 38 June, 1942 No. 6

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

War and National Health

COLONEL LEONARD G. ROWNTREE, MED-RES.

IT IS indeed a pleasure to discuss with this distinguished association, the important and timely subject which you assigned to me, "Health and National Defense", which, by virtue of the existing state of war, we have translated into "War and National Health".

We would be remiss if we did not, at this time, pay high tribute to the five outstanding Ohioans, active in Selective Service; to Colonel Carlton S. Dargusch, much esteemed Deputy Director of Selective Service National Headquarters and one of the most distinguished men of this city; to Colonel E. C. Jones, Corps Area surgeon; Colonel Chester W. Goble, State Director, and to Colonel Howard E. Boucher, State Medical Officer, and Major C. S. Perry, who have furnished true leadership and wise guidance in Ohio in all matters pertaining to Selective Service. The appreciation of National Headquarters is likewise extended to the highly efficient staff of medical and dental examiners who have served so faithfully during the last year and a half on all 330 boards within this State. Untiring work such as theirs has made Selective Service function effectively—not alone locally here in Ohio, but also nationally, and throughout every State in the Union.

WE ARE NOW AT WAR

The strength of a nation at war is to be found in the might of its arms and health of its people. The most important question facing our profession at the moment is—how can we contribute most to the strength of the Nation. What can the medical profession do **now at this time** to improve national health.

The Author

● **Colonel Rowntree, Washington, D. C., is Chief, Medical Division, National Headquarters, Selective Service System; formerly Director Philadelphia Institute of Medical Research.**

MEDICINE IN TIME OF WAR

The medical profession is facing crises on both the war and home fronts. Since the dawn of history, the doctor has attempted to remedy disabling defects, deficiencies, disorders and diseases of the sick individual. Since the time of Moses, special groups have struggled for the prevention of disease and with the problems affecting community health. Since the days of Aesculapius, the surgeons have struggled with the problems of injuries and wounds. Since Galileo, creative medicine has kept pace with the advancement of science. But despite all the advances we still face innumerable unsolved problems and the necessity for heroic and superhuman effort in many branches of medicine.

Let us consider now these four essential phases of medicine—military medicine; civilian practice; public health; and creative medicine—and see how medicine at the present time should face its problems in these various fields.

MILITARY MEDICINE

The first consideration in time of war is the care of the combatant (soldier, sailor, marine,

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Read before the Second General Session, Ninety-Sixth Annual Meeting of the Ohio State Medical Association, at Columbus, Ohio, April 28-30, 1942.

and the flyer). Men for these services must be selected with special care and with due consideration for the service they are to render and then they must be kept well and given expert treatment, as needed.

Selective Service—Selective Service, under the skillful guidance of Major General Lewis B. Hershey, is charged with the procurement of men for the armed forces. It is not a draft board, but aims to place each and every male citizen of military age in the position in which he can serve best the needs of the Nation at war.

Selective Service has registered the many millions of men between the ages of 21 and 45 years; has sent out appropriate questionnaires and has classified more than fifteen million of those registered. For this purpose, it has set up appropriate boards in each and every community in the country: 6,441 Local Boards, 660 Medical Advisory Boards and 600 Appeal Boards. Through its 28,000 physicians and 10,000 dentists, it has examined physically some four million men, many of whom have already been inducted into military service.

In carrying out its medical function, Selective Service fortunately has been provided with an excellent statistical service. Three surveys have been completed to date, and the fourth is now in progress. These surveys have served to emphasize the high incidence of defects, deficiencies, disorders and diseases. Thus, in the first two million men examined, 50 per cent were rejected because of failure to attain to the standard requirements of the United States Army. Many of these defects were of a minor nature and readily subject to remedy. This does not mean that 50 per cent of the registrants examined were sick or invalids, nor does it indicate 50 per cent illness on the part of the population as a whole. The survey does, however, reveal a high incidence of defects sufficient to disqualify for combat service and hence, responsible for 50 per cent reduction in 1-A manpower for the Army.

These defects, deficiencies, disorders and diseases are not necessarily disabling from the standpoint of civilian life. They are hidden defects covered up while the citizen carries on in civilian occupation. They do, however, constitute a handicap, even from the standpoint of industry in many instances and are potential sources of more serious disease. These defects are mostly of a benign nature which, as a rule, have not been called to the attention of either practicing physicians or public health authorities. Past failure to uncover this zone of hidden defects has resulted in its continuation and often in serious deterioration of health.

THE PRESIDENT'S PLAN OF REHABILITATION

The current situation as revealed in these figures proved a matter of grave concern to the President, who, on October 9 called to the White House those most vitally concerned in this matter. He discussed the problem with insight and feeling and outlined a Program of Rehabilitation. This program provided that 200,000 in the Class 1-B group be rehabilitated for service in the armed forces and that this program be carried out in the registrant's home community by his family doctor and dentist, as far as possible, in conjunction with the local and State medical and dental organizations. The rehabilitation was to be effected at a reasonable cost for which, he said, funds were to be provided.

Some diseases are considered more favorable for rehabilitation than others. Among those quickly remediable, dentistry offers the best possibility since it was estimated that 100,000 of our rejectees can be rehabilitated satisfactorily and without risk, but this number has been reduced, due to the lowering of dental requirements by the Army. Perhaps 5,000 to 10,000 suffering with diseases of the eye and defective vision can be salvaged, and a larger group—perhaps 10,000—allegedly suffering from cardiovascular diseases. In the field of venereal diseases, some are acceptable; others not. The Army objects to taking those infected with syphilis, but it seems probable that a large group of perhaps 10,000 to 15,000 suffering with uncomplicated gonorrhea might qualify. In addition, it seems likely that at least 20,000 showing mild degrees of overweight and underweight can be salvaged. Perhaps 50,000 others, suffering from miscellaneous deficiencies and defects, can be made available to the military forces.

The unfavorable group for rehabilitation includes those suffering from nervous and mental diseases, from syphilis, and from diseases of the ear and defective hearing, from diseases of the lung, and from tuberculosis. Rehabilitation in these diseases will not be attempted. Surgery is being avoided for the present, at least, except in the simplest conditions, where it is specifically requested and where the registrant is willing to assume full responsibility. Later, however, it may play a larger role.

It is the opinion of the Medical Division of Selective Service that the President's plan of rehabilitation presents a golden opportunity for the medical and dental professions—not to see what they can get out of it, but **to see what they can put into it in the way of service.** The rehabilitation program represents a big job and a great responsibility and, as set forth by the President, a real compliment to the medical and dental professions. Pilot tests are at present in progress in two States—Maryland and Virginia. The machinery, however, is almost ready for a national approach.

PREHABILITATION

The President's plan originally provided for the rehabilitation of 200,000 men for service with the armed forces. It does not, however, solve the much greater problem of the lack of physical fitness and the prevalence of deficiencies and defects among other men of military age or among the civilian population as a whole. In this connection, Selective Service has offered its own plan—the plan of prehabilitation which provides for a campaign of education concerning the standard requirements in the Army; the examination by the family doctor or dentist of those men who fall short of these requirements; the correction of remediable defects found, by the doctor or dentist concerned, and on the usual doctor-patient relationship, and the certification of prehabilitation by the doctor responsible for the correction of the defects.

This plan invites every registrant and every young man in the Nation to fit himself in advance for examination and if acceptable, for service with troops or industry. It emphasizes the desirability of not permitting minor defects to defeat major objectives. It is particularly applicable in universities, college, and the schools all over the country, as also in labor and industry. The fact that defects are rampant, as evidenced by the surveys of Selective Service, indicates a widespread need for improvement in physical fitness and health.

Medical Corps of the Army.—It has been stated that the Nation's first health concern in times of war is the health of its Army. For this purpose, there exists the Medical Department of the Army under the supervision of the Surgeon General and this provides constant supervision of every item and of every matter pertaining to the soldier's daily life along the lines of preventive medicine and of individual care. If and when the soldier becomes ill, he is then given expert medical care and treatment such as cannot be surpassed in any other walk of life. Similar service is rendered to the Navy by its Medical Department. Both the Army and Navy have air services and exercise extreme care in the selection of men for such services, and in the supervision of their training and health.

Great numbers of physicians are needed by the military forces. Thus, in the last war for the care of 3,600,000 men, more than 30,000 medical officers were required. The number in service at present exceeds 14,000, and an additional 16,000 are needed by the end of the current—5,000 of them within 60 days. The Medical Department of the Navy already exceeds that in the last war and within the coming year, thousands more are needed. Aviation is growing to tremendous proportions. A special call has recently been issued for 2,500 additional doctors in this field alone. Obviously, medical men must flock to the colors.

From the above figures, it is evident that every doctor in the land must serve to his utmost capacity somewhere and that practically every physically fit male doctor under 45 years of age will be serving with the forces.

Probably no army in history was more carefully selected than our first million men inducted, nor has any other army shown better health than ours. In the selection of this group, high standards were employed so that their health and physical fitness were superb. To date the country has been fortunate beyond belief, in the absence of any epidemic.

The success of selection is reflected to a large extent by the performance of the soldiers and the low incidence of certificate of disability discharge. Figures available, to date, indicate unusually good selection on the part of Selective Service and the Army examining boards.

WAR CASUALTIES

These of course are of primary importance to military surgeons; however, we all know that there are many war casualties other than surgical cases, such as casualties due to disease, psychiatric conditions, etc. All types of casualties in the Army are carefully treated and considered with the hope that each individual may be returned to duty. This occurs in a very large percentage of cases, but there are still others that have to be discharged from the Army, and if they are in need of further hospital treatment or medical care, they come under the jurisdiction of the Veterans Administration. This agency carries on from the point where the Army leaves off, with 91 well-equipped up-to-date hospitals scattered throughout the country and divided into 29 neuro-psychiatric, 50 general, and 12 tuberculosis hospitals.

But many of these war casualties could have been and should have been prevented at the source by rejection—especially the psychiatric cases. At present many cases of syphilis are being rejected because of positive serology. Innumerable incipient cases of tuberculosis are being prevented from entering the Army by the universal use of the X-ray of the chest. Unfortunately, there are no X-rays capable of showing mental and behavior misfits, which makes it all the more incumbent upon the examing physicians of both the Selective Service and the Army to exercise the utmost care in this field, thereby perhaps saving untold distress to the individual and untold millions of dollars to taxpayers.

Before leaving the subject of Military Medicine, it should be stated emphatically that **now** is the time to get into service—today, not tomorrow! It is the duty of every physician, as of every citizen at the present time, to ascertain where he can serve best—the Nation, not himself.

II. CIVILIAN PRACTICE IN WAR TIME

Despite the inroads made on medical personnel through the needs of the armed forces, the practice of medicine as ordinarily understood must be carried on with unremitting vigor; every physician serving on the civilian front must recognize the great increase in the demands on his time and energy and must do his utmost to serve in one or another of the civilian organizations active in the national defense. Among these organizations may be listed Selective Service, Office of Civilian Defense and all of its ramifications, Red Cross Service and the usual National, State and County Medical Societies with their ramifications of the various emergency committees. Every physician should give a certain portion of his time to one or more of these agencies and not allow the whole burden to fall on the shoulders of the willing few.

The most essential need in civilian practice at the present moment is careful planning on the part of the profession and the individual doctor for optimum service, harder work and longer hours for each and every doctor of all ages and both sexes.

The Problems of Industrial Medicine.—The importance of industrial medicine has grown by leaps and bounds. Since America has become, of its own choice, the "arsenal of democracy", industrial medicine becomes a matter of more than national importance.

In discussing industrial medicine, we are deeply indebted to Dr. William A. Sawyer, Medical Director of the Eastman Kodak Company, who has furnished us with some exceedingly valuable information on this subject and from whom we take the liberty of quoting in some detail:

> "The physical qualifications necessary to be an industrial worker are considerably less rigid than those demanded by our military forces. The human physical requisites for industry are not so exacting. In the shop and factory, a man may do a high-quality job standing still or while seated, although he could not perform at a task which required walking, running, climbing, lifting, pushing, or pulling, especially while carrying a heavy load. So long as he has eyesight, two good arms and hands, intelligence and the endurance to stand or sit for eight or nine hours daily, he can be a satisfactory producer. In this way, industry can use many men physically limited for one reason or another, thereby releasing men of better physical fitness for the Army. The program of the Selective Service System bears a certain similarity to the industrial pre-employment and pre-placement medical examination for the selection and classification of workers. Applicants are rated as follows:
>
> I. Physically fit for any employment, no defects or impairments. II. Physically fit for any employment. Minor impairments, easily correctible. III. Physically fit for certain restricted employment. IV. Physically unfit for employment (rejection).
>
> "In industry, under certain well-organized plants, Class II correctible defects are employed and followed periodically while working, until the condition has been taken care of adequately. Common defects in this group are poor vision, infected tonsils, dental caries, anemia, underweight, overweight, etc.
>
> "Industrial medicine comes nearer to preventive medicine than any other branch of the entire practice of medicine. It has been found that the doctor in industry can help reduce the severity rate of accidents through health education and by taking care of them properly. Certainly, major infections have been prevented by insisting that even the slightest injury be treated promptly, by either the doctor or the nurse. Prevention became the watchword and today efforts on the part of the doctor and nurse are large factors in preventing disability and lost time, both costly wastes to employer, employee and the national war effort.
>
> "Under the above ideal situation, it is possible that industry could institute a more positive program on the behalf of Selective Service. Industry could review all eligibles and offer examinations and advice concerning the correction of defects. Those whose patriotism and sense of duty convinced them they ought to enter one of the armed services as soon as possible will welcome an opportunity to correct disqualifying conditions."

It is interesting to note the manpower available for war work before we study the terrific toll that disease takes of this manpower. For example, the available manpower is as follows:

District	Working Hrs. per Wk.
New England States	39,000,000
Middle West	130,000,000
East Central (including Ohio)	154,000,000
(Ohio alone has 31,500,000 working hours per week)	
West Central	83,000,000
South	153,400,000
Rocky Mountains	18,000,000
Pacific Coast	46,000,000
TOTAL	623,400,000

Now we are faced with that part of the problem on which our attention is focused today—the loss of man days in our war industries due to disease and illness. In war industries alone, in the month of November, 1941, 3,200,000 man days of work were lost, and throughout the United States this total reached the huge proportion of 28,000,000. There are approximately 51,000,000 employed persons in the United States and a recent survey indicates that 23 days out of every 1,000 man days are lost because of illness. However, it is interesting to note that illness in war industries, or industries indirectly connected with war production, is considerably lower than that of the rest of the country; i.e., reduced to 14 out of every thousand man days being lost because of illness. This may be accounted for by the preliminary physical examination being made on all persons employed in war industries.

Physicians, sanitary engineers, technicians and employers must pool their kowledge on means of promoting the worker's health and, therefore, their efficiency. However, the patient-doctor relationship should not be sacrificed in this attempt to elevate the health of our industrial workers.

Ten per cent of the industrial disability is caused by occupational injuries and disease, 90 per cent is due to non-industrial accidents and sickness. Seven per cent are occupational mishaps. The average worker loses about seven and one-half days a year because of sickness and accidents, or an aggregate of 400,000,000 man days lost annually in this category alone.

In trying to visualize these stupendous figures, **just picture a thousand plants, each employing a thousand persons, shut down for a whole year,** and then you can appreciate the immensity of the problems confronting industrial physicians, engineers, hygienists and technicians. Industrial hygiene can be the backbone of the expanding progressive program to "keep America fit" and to "make America stronger."

Industry must place a premium on good health in order to encourage employees to adopt a proper standard of living.

Mushroom Communities.—This term appears to be well chosen since severe sudden and immense increases in population may occur almost overnight, villages being converted suddenly into large cities: Witness, for instance, the sudden development at Willow Run from zero to 100,000 workmen almost overnight. Such developments are well known to all of you and they present critical, perplexing problems to the medical profession at large, to the local physician, and to the public health in all its ramifications. This question of mushroom communities should receive the very careful and coordinated study of every State and County Medical Society which must share in the burden. In importance, industrial medicine is probably secondary only to military medicine in this time of crisis.

III. PUBLIC HEALTH SERVICE

The problem of public health has for many years loomed large in the medical world. Today it takes on increased dimensions. Now in war time this subject of public health bears directly on every individual man, woman and child in the country, and peculiarly so on the medical profession. With your permission I shall mention some of the matters so poignantly emphasized in the recent paper by Dr. James A. Crabtree, Surgeon of the United States Public Health Service, and Executive Secretary, Health and Medical Committee of the Office of Defense Health and Welfare services. Doctor Crabtree states, "The biggest job has been and still is to get good sound local health services organized and functioning within the several critical defense areas that are so strategic to our entire war economy." In the last 18 months, Public Health Service has served some 300 areas where there have been or proposed to be mushroom growths, mobilization and industrial expansion. The basic facilities for medical care and public service were lacking in many of the strategic regions. In addition to the 315 areas already surveyed, there remain 58 additional communities which have to be studied. This number and lcoation, of course, is apt to change from day to day. It seems that both professional and lay personnel is lacking throughout the whole of the expanded program of public health, and it is essential that they make the wisest use of this actual and potential personnel resources, as under the best circumstances today it is spread very thin.

I wish personally to commend the efficient manner in which Public Health Service has handled the serological problem in collaboration with Selective Service. It, as you know, shared the burden with Selective Service, in this very important item of physical examinations. As you know, the blood specimens were taken at the Selective Service examining centers and forwarded for testing to the Public Health laboratories. The Public Health Service furnished all equipment for securing and forwarding these specimens.

It is interesting to note that the Public Health Service maintains 27 Marine Hospitals and 125 Relief Stations wherein medical treatment is provided for the Coast Guard and the American Merchant Marine. This service is constantly expanding.

The Medical Division of the Office of Civilian Defense is staffed by Medical Officers of the Public Health Service.

Doctor Crabtree closes his extremely able paper as follows:

> "To fill effectively the wide gaps in our health program calls for the best talent and the clearest thinking that can emanate from such diverse fields as medicine, public health, nursing, engineering industry, labor, agriculture and economics. The coordination of these talents and the crystallization of this thinking into a unified attack upon the entire health front today constitute, in my opinion, the major challenge to the statesmanship of medicine and its related disciplines."

CREATIVE MEDICINE

Important as medical research is in times of peace, it is vastly more so now that we are at war. Every effort should be made to see that it is maintained at **its highest level** and that careful study, investigation and experiment proceed along channels that will aid most in the war effort. In this war as in those in the past, the scope of research is unlimited.

Out of the Russo-Japanese war came our first great lesson of vitamin deficiency. The chief cause of death in the Spanish-American war (Typhoid Fever) now is virtually unknown. Since the last war, tetanus has largely been brought under control. At present, chemotherapy is furnishing the means for the control of wound infection and of gonorrhea while dried plasma and adrenal products are proving the principal remedies for the prevention and control of surgical shock. Now is the time for expansion in research programs—not for restriction.

THE PRESERVATION OF MEDICAL PERSONNEL AND FUNCTION

This country has in all some 180,000 physicians, 155,000 of whom are in active practice. Approximately one-third of this entire number will be needed for the military establishments. Irrespective of the general need, the military demand must take precedence. Every practicing male physician in this country should take cognizance of the fact that at the present moment the medical corps of the Army is far below the minimum requirements.

Obviously, if our medical function is to be preserved, steps must be taken to see that an adequate medical pool is retained so that the Army needs are met at the earliest possible moment, and that the civilian population is also accorded as adequate a service as possible.

In this connection, one of the most important considerations is the continuance of an adequate flow of graduate physicians from the medical schools of the country. The annual output of the medical schools is approximately 5,300. This has been protected—first, through deferment by Selective Service of medical school students from the time of acceptance in the medical school to the end of the first year of interneship. During the last year, special corps were created by the Army and by the Navy, whereby medical students are taken into appropriate organizations under military control—the Medical Administrative Corps of the Army and as Ensign, United States Navy Reserve, Class H-V (P) in the Navy. Students are thus encouraged to continue their course until such time as they are competent to render the services desired. Upon graduation, they are available for service in the Medical department of the Army or Navy.

In addition to protection attempts have been made to augment both the size of the incoming stream and the tempo of education, through the increased enrollment of medical students and to date the concentration of the four-year medical course into three calendar years training. By such procedures, it is believed that the number of individual doctors will be increased annually by some 25 to 30 per cent. It goes without saying that all nonessentials in medical schools should be discouraged and essentials reduced to a safe efficient minimum.

MAJOR PROBLEMS FACING WAR TIME MEDICINE

As medicine functions throughout the nation, certain fields present major problems, some of which are worthy of special discussion.

Psychiatry.—Psychiatry faces problems serious enough in peace time; but in war time they assume monstrous proportions. Fortunately we have advanced many leagues since World War No. 1, in which our mistakes in this field were very costly. Now we are endeavoring to prevent repetition of as many of these mistakes as possible. Early in its program Selective Service issued Medical Circular No. 1, which was most helpful then in calling the attention of examining physicians of local Selective Service and of Army boards to the need for special attention to neouro-psychiatric phases of the examination.

Selective Service Psychiatric Seminars were held throughout the length and breadth of the country in order to make Selective Service, the Army examining doctors, and general practitioners, more familiar with the subject—especially in its relation to the war effort and Selective Service. A proper psychiatric examination demands considerable time, which, under the existing methods of physical examinations for the armed forces is impossible. However, a truly great advance has been made recently along these lines in the three-day observation period permitted by the Army in certain of these cases before induction. It may be ordered by the Examining and Induction Boards of the Army and during this period the registrant is under supervision of trained military personnel in the vicinity of the induction boards. This constitutes the most valuable single addition yet made to the psychiatric examination.

There is, however, another important problem in the field, namely, the assembling of all psychiatric data in each State in one office or bureau. There is a crucial need for such a central bureau of information, especially in the field of nervous and mental diseases. Selective Service can utilize this information to great advantage and thereby be in a position to advise the Army Examining and induction boards wisely as to matters pertaining to the mental status of many of the registrants. If such state bureaus are created, it would be a simple matter to create a national registry and a master list through some form of assembling process.

Psychosomatic diseases present some difficult problems, especially as to classification and grouping. More attention should be paid to this type of case, inasmuch as war time excitement, stress and strain will multiply them many fold; especially in the field of cardiology and gastroenterology.

Dentistry.—Dentistry has and will loom large on the military horizon as is evidenced by Selective Service statistics. Time will not permit an academic discussion of the dental problem, other than to stress the necessity of determining the prevalence of dental disorders, the prevention of caries, the preservation of teeth, and the abandonment of the present system of wholesale extraction. A healthy mouth is essential to a healthy body.

Venereal Disease.—Venereal disease is a subject of vital interest and concern to the nation at all times, but especially in war time. **Its present prevalence is a disgrace**—its present control a challenge to the nation. It is unfortunately not solely a medical problem. Human passion transcends medical control. Despite passion, medicine should be able to render some help. However, venereal disease is like a smouldering fire. It lurks everywhere and breaks forth in unexpected places. Of course it is infinitely more of a menace in war time because of the great congregations of young men, away from home influence and from organized recreational programs during their leisure time. Unless careful supervision is exercised, prostitution will attempt to encircle every camp in the country. There is no doubt but that we are better armed now to subdue this scourge of venereal disease than we were in times gone by. The sulfanilamide compounds have practically rendered gonorrhea easy of cure. The early discovery and treatment of syphilis has minimized its contagiousness, prolonged life, and greatly decreased its distressing complications and visceral manifestation.

Consideration of this problem is the duty of every physician. He should be concerned at all times, especially the physician who is prominent in the community bordering military camps. Physicians should help this campaign of education by disseminating information covering the prevalence of venereal disease, encouraging methods of its prevention, and for its control. Probably no field of medical endeavor is more in need of efficient organization at the present time.

Due to the racial differences and manner of living, the incidence of venereal disease varies greatly between different sections of the country. There is being considered at the present time some plan for instruction of the selectee awaiting examination for the Army concerning the prevalence of, danger of, and prevention of venereal disease. The exact procedure, however, has not yet been determined.

Nutrition—The national importance of nutrition is very great at any time, and has been receiving more attention in the last few years than ever before. During war time, it becomes one of the major problems, not necessarily because of any actual lack of essential food stuffs, but because of a lack of knowledge in their proper use. The question of nutrition for the armed forces has always received intensive study by the most eminent men, and the Army ration today is extremely well balanced. This, however, does not obtain for the civilian population as a whole. It behooves the medical profession to become more familiar with the subject of nutrition, vitamins, minerals and calories in order that they may properly instruct their patients, and the population at large along the most satisfactory lines and to combat, as far as possible, some of the loose thinking and promotional advertising pertaining to nutrition. The population as a whole should be instructed in the necessity of regular well balanced meals, and of eating without hurry, worry or excitement.

There has been a more or less widespread opinion that this nation is undernourished. This is undoubtedly true in isolated instances and in many districts. The statistics of Selective Service examinations reveal a tendency to increase in weight in the youth of the nation. Our typical average registrant today is 25.7 years of age; 5′ 7½″ tall, and weighs 150 pounds. This compares favorably with the average draftee of World War No. 1, who was also 5′ 7½″ tall and who weighed only 142 pounds. The average for the soldier of the Civil War was 136 pounds or 14 pounds less than that of the average registrant today. His average height was 5′ 7½″ tall, the same as the present registrant. It appears therefore that the height of our young men is unchanged during the last 80 years, but that the weight is somewhat increased. In all probability, this is due to too much carbohydrates, too much automobile, and not enough exercise.

Nevertheless, nutrition now constitutes one of our major medical problems and will grow constantly in importance as the war is prolonged.

HEALTH AND EDUCATION

At no time in our lives can the theme "Build for Fitness" be better applied in the schools of our country than now. Physical and mental development of our youth in the schools are equally important. The greatest fault in our present national system of education lies in the field of physical training. **Clearly it is our plain duty to see that the center of gravity of the educational system of the country is shifted so as to cover physical preparedness.** It is for us to see that the education of the future is such that it adds stamina to bodies, strength to muscles, enhances the will to win, and contributes iron to the blood of students for the creation of men of steel.

The need stands revealed. War time brings opportunity. Now is the time to formulate and put into action, plans for a nationwide improvement in the health of the youth of our country.

Building of physical fitness is the particular job of trained physical directors who have studied the human body in the light of what exercise, diet and sleep will do for health; all of these three factors are equally important in the physical development and maintenance of good health of the school children of our country.

The curriculum of our schools must have a definite place for a systematic and scientific physical development program for all students if we are to build our youth into physically strong men and women. Boards of Education, Regents of universities, and Trustees of schools must realize their responsibility for this health program.

Routine periodic physical examinations of the students, the informing of parents of the findings of defects, and provision for their immediate correction are all essential in eradicating hidden disease.

We must face, with our teacher colleagues, the fact that we need to help "toughen up America." The next few years will impose physical and nervous strains on our young and old such as we never dreamed human beings would be called upon to withstand. We must share with parents and teachers our scientific knowledge of the remarkable adaptability of the human mechanism.

The university student health organizations can contribute leadership. It will be necessary for them to correlate the services of the medical schools and their faculties. With the backing of the universities and the alumni, the student health services can provide unique, professional leadership among the educators of the country.

It is further suggested that in every university that be set up by the student health service, a **"War time Intramural Inter-collegiate Health Council"** representing all these various health interests listed above, and that these councils take as their objective and slogan, **"Optimum Health For Each and Every Student."** These councils can act in an advisory capacity within their respective States to all the existing health organizations interested in war programs. By this plan the universities of the country can raise the standard of health and increase the physical fitness of their students. Once these councils are established in the universities, their services will percolate down through grades and grammar schools until they embrace the students of the country as a whole. Obviously the education of tomorrow must interest itself in H-Q's (Health Quotients) as well as in I-Q's.

CO-ORDINATION OF MEDICAL SERVICE

Committee on Health and Welfare—There has been set up in this Nation in the office of the Federal Security Agency, a national committee on Health and Welfare under the able leadership of Mr. Paul V. McNutt. This agency is set up for the specific purpose of preserving the welfare of the people. **Medicine must realize one fact now. Complete cooperation of the medical profession in this endeavor is absolutely essential to its success.** This holds true now in war time. Furthermore, many other major fields of endeavor are under Mr. McNutt's jurisdiction, including the Procurement and Assignment Service, which deals with the equitable allocation of doctors, dentists and veterinarians. These all constitute cogent reasons for medical cooperation with him and the committee on Health and Welfare. **Let medicine formulate its own plan now and offer it to the Co-ordinator of Health and Welfare so the we may utilize our services to the best advantage of the nation along lines we most approve.**

WHAT ROAD IS MEDICINE GOING TO TRAVEL

Never in the history of American medicine has its need been greater than now, for wisdom, leadership, clear thinking, and constructive planning. Medicine has already rendered magnificent service in each and all of the fields mentioned. Medicine has also created from within a nation-wide organization for purposes of national defense. This committee has been taken over and is now functioning as the Committee on Health and Welfare. On this committee, medicine has medical men of outstanding ability and great leadership.

In every phase of its function, the medical profession should study the need for its services and the available supply of doctors and the various demands for them. It should offer its services fully and unreservedly in the joint effort of all medical organizations to maintain health at its highest level, and to place national health on a higher plane. The medical profession should forego all unimportant projects, should yield in unimportant details, while preserving only that which is really essential to medicine of today and tomorrow. Medicine should develop its own program and indicate how it can serve best the Nation, not itself. It should however, try to retain freedom of choice of the doctor and the preservation of the old time doctor-patient relationship.

So far as medicine is concerned, it must meet America's greatest war time need—maximum health for each and every citizen, both on the war and home front. Improved national health can only be attained through improved individual health. The enthusiastic intelligent cooperation of the medical profession is essential in order to attain this goal—preservation of good health, the promotion of better individual health, elevation of national health, with consequent increase of manpower, all of which are essential now.

The war effort of our country is entirely dependent on the health of our people and we close this discussion in full confidence that America will fortify its health programs to the end that those who are behind the lines and who are keeping the planes flying, the ships sailing, the tanks rolling and the guns firing, will do so without the handicap of illness and that Health in our war effort will ultimately overcome all obstacles and lead us ultimately to Victory.

Glycosuria Associated With Disease of the Biliary Tract

OSCAR BERGHAUSEN, B.A., M.D.

The Author

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SINCE little clinical evidence of disease of the liver in cases of diabetes mellitus is usually encountered, it was thought instructive to study the incidence of glycosuria in a series of 136 patients, mostly ambulatory, in whom cholecystic changes were detected as a result of clinical and laboratory investigations. These included a study of the material obtained after duodenal drainage using the Lyon technique, as well as consideration of the report obtained after roentgenologic examination. The usual findings of a lack of color sequence and the data obtained by microscopic examination of the sediment from the various fractions of bile were adopted as the criteria for the laboratory diagnosis of cholecystic disease. Since most of the patients were ambulatory, it may be assumed that advanced changes in the liver parenchyma were lacking. It has been the experience of others that gall stones occur with somewhat greater frequency in those suffering from diabetes mellitus and that symptoms of cholecystic disease precede the development of glycosuria. Operative measures were advised in those suffering repeated attacks since these lead to permanent damage to the sugar regulatory mechanisms and impairment of the function of the liver in removing dextrose from the blood.

Consulting the table it will be noticed that 30 of the 136 patients showed the presence of sugar in the urine, 26 of these being above 40 years of age.

INCIDENCE OF GLYCOSURIA IN AMBULATORY PATIENTS

Diagnosis	No. of Cases	Females	Males
Disease of liver and bile passages	136	84 (61.8%)	52 (38.2%)
Glycosuria			
(all ages)	30 (21.7%)	17 (12.5%)	13 (9.5%)
(above 40)	26	15	11

Of the 30 patients with glycosuria 24 were suffering from cholecystic disease, two from carcinoma of the liver and one from cirrhosis of the liver. In 12 of 20 cases (60 per cent) the patient was overweight, showing the high incidence of obesity in cholecystic patients with glycosuria. In eight of 22 (36.3 per cent) there was an elevation of systolic blood pressure above 140 mm. of mercury; five of these were over 50 years of age, three between 40 and 50 years.

In another series of 24 cases which came to the autopsy table glycosuria was detected in five, but in no instance was the diagnosis of diabetes mellitus established.

SUMMARY OF 24 AUTOPSY CASES

Diagnosis	No. of Cases	With Glycosuria
Acute pancreatic diseases	4	3
Carcinoma of pancreas	3	1
Cardiac disease	2	1
Cholecystic disease	10	0
Peptic ulcer	2	0
Cirrhosis of liver	1	0
Total	24	5 (20.8%)

Thus we see that glycosuria is detected in approximately one out of five cases of advanced diseases of the pancreas, liver and bile passages. Comparing the two tables we find that the incidence of glycosuria is similar; 21.7 per cent in ambulatory patients and 20.8 per cent in the latter group. By combining the two series of cases and listing the diagnoses, we find that 14 suffered from severe diabetes mellitus and 10 from a mild form, the incidence being 24 in 160 cases (15 per cent). This statistical study justifies the conclusion that the incidence of diabetes mellitus in the presence of disease of the liver and bile passages is not so great as to cause the latter to be a considerable factor in the production of the former. We cannot say that diabetes mellitus is a complication of cholecystic disease. After 40 years of age, obesity becomes a factor in causing diabetes mellitus and cholecystic disease; hypertension is a less frequent factor.

In the presence of glycosuria, when the diagnosis of diabetes mellitus cannot be established clinically, then the patient should be given the benefit of a sugar tolerance test before placing him on a strict diet and the use of insulin. The tolerance test may aid in eliminating diabetes mellitus as a factor; the proper investigations for the presence of cholecystic disease may suggest its presence and the desirability for surgical intervention. Some patients with lowered tolerance will improve with repeated drainage and high carbohydrate intake, probably due to improved liver function.

Submitted March 27, 1942.

Trichinosis Encephalitis

ROBERT R. HAYS, M.D., and J. PAUL SAUVAGEOT, M.D.

THE ovoid cysts of the Trichinella spiralis were described in human muscle by Tiedemann in 1822. The parasite was figured and named by Richard Owen in 1835. Leidy in 1845 described it in the pig. For a long time the Trichina was looked upon as a pathological curiosity. In 1860 Zenker discovered both the intestinal and muscle forms and established their connection with the disease.[1]

The Trichina has been found in a great variety of warm blooded animals. The rat, cat, dog, and the bear[2] are probably the chief hosts other than the pig. The dog is not easily infected. There is considerable feeling among public health officers and pathologists that man's arch enemy, the rat, is probably in the final analysis responsible for the perpetuation and spread of this infestation. Rats are almost always found about the pens of pigs, and it is common knowledge that a pig will eat almost anything, even a rat. The pig thus becomes infested or infected. For some reason, few if any symptoms or signs are produced in this animal. Man most commonly becomes afflicted through the eating of improperly cooked pork, although bear meat has been responsible for some cases.

It seems to have been fairly well established that after ingestion of the meat which has been improperly cooked, the gastric juices cause a liberation of the encysted Trichinae, which then go through the state of copulation and production of the larval forms which are deposited in the intestinal villi by the female Trichina. They find their way by the lymphatic system to the thoracic duct, to the superior vena cava, the right side of the heart, the lungs through which they pass, to the left side of the heart, and thence into the systemic circulation. Herrick and Janeway[3] in 1909 recovered the parasite from the blood stream.

The parasite has been demonstrated in practically all the organs of the body. The voluntary muscles when involved produce the most obvious symptoms and signs. No doubt for this reason, little attention has been directed toward the study of the nervous system. Mention is made in the various texts of the irritability, stupor, and absent reflexes, with little more said. Most and Abeles[4] in an extended review of the literature up to November, 1935, report 10 papers concerning the neurologic and psychiatric manifestations of trichiniasis. Many of these reports are substantiated by postmortem and neuropathologic studies, including one such case by the authors. Since that time Merritt and Rosenbaum[5] report two cases.

The Authors

- Dr. Hays, Akron, Ohio, is a graduate of Jefferson Medical College, 1922; member American Psychiatric Association; American Association on Mental Deficiency.
- Dr. Sauvageot, Akron, Ohio, is a graduate of Ohio State University College of Medicine, 1928; electrocardiographer, Peoples Hospital, Akron, Ohio.

Blumer[6] (Shattuck lecture) states "That this, (circulation of larval forms in blood stream) results in the flooding of the entire system with enormous numbers of embryo parasites, which, on the way to their final resting place in the voluntary muscles, invade every tissue and organ of the body". He further states that cases of trichinosis fall into three main groups. (a) With preponderance of myocardial symptoms and signs. (b) Nervous system involvement. (c) Renal involvement. The cases involving the nervous system he further subdivides into, (1) patients with hemiplegia, one case of which he reports as having personally observed. (2) Encephalitis—which he says he has not seen.

Evers[7] reports in 1939 a case in which there was nervous system involvement. T. spiralis was found in the spinal fluid and photographs of the organism made.

Stadler[8] in 1940 reported a case of trichinosis encephalitis.

Frothingham[9] in 1906 was the first investigator to demonstrate T. spiralis in a human brain. Since that time his observations have been confirmed by many other workers. Knorr,[10] Bloch and Hassin,[11] Hassin and Diamond,[12] Pund and Mosteller.[13] Gordon, Cares, and Kaufman[14] report a case in which there were clinical features of encephalitis, but the changes were nonspecific in character.

It would seem that there are two factors active in the production of the nervous symptoms and signs, namely the toxaemia and the actual invasion of the brain by the larval parasites. The pathologic lesions consist of meningeal congestion and edema. There are areas of cellular infiltration[9] in the brain substance within which are found in the Trichina embryo. Hemor-

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Submitted March 16, 1942.

rhagic spots[10] on the surface of the brain have been found. Spaces[11] are found particularly in the cortex which contain occasionally a capillary or a fragmented ganglion or glia cell. The ganglion cells shows signs of degeneration and are often surrounded by spaces which in turn are surrounded by neuroglial tissue. Sometimes the spaces are filled with lymphocytes. The vessels are engorged and capillary hemorrhages are occasionally seen. Perivascular infiltrations are common. Nodules of glia cells scattered throughout the brain, seems to be the more common lesion. In the nodules are found the Trichinas. Parasites have been found lying free in the cavities of the fourth and lateral ventricles.[12] It is said that the parasites are too large to pass through capillaries but that they do go through small arterioles.

REPORT OF CASE

Mrs. E. F.—White, housewife, age 25, the mother of two children, was admitted to the Peoples Hospital of Akron, Ohio, January 19, 1941, after having been seen by Dr. Sauvageut in consultation.

Chief complaints were: Coughing, pain in chest, general malaise, drowsiness and fever. Personal and family histories were essentially negative.

Present Illness—Is said to have begun about two weeks prior to admission, with cough, fever, general malaise, pains in chest, extreme drowsiness, severe occipital headaches, and weakness in the lower extremities. In the beginning there was a great deal of swelling of the neck, face, and particularly of the eyelids. The edema was so marked that nephritis was suspected by the family physician.

The provisional diagnosis at the time of admission was acute encephalitis, probably post-influenzal.

The admission note states that the patient is a well nourished, well developed young white female, about 25 years of age. There is swelling of the eyelids, and the skin is dry and hot. There is some stiffness of the neck. The temperature is 105^{4}F. The knee jerks were absent, White blood count showed 17,000 cells with eosinophilia of 17 per cent.

The following day the temperature was 105°F. Leukocytes were 14,800 with no eosinophiles found.

I saw the patient in consultation on January 21, 1941, with Dr. Sauvageot. At this time she was completely disoriented for time, place and persons. She could be roused but would quickly lapse into a somnolent state. She was totally unable to cooperate in examination. The pupils were widely dilated and reacted very poorly to light. Ophthalmoscopic examination could not be made. There was some nuchal rigidity. Swallowing reflex was almost absent. Speech was slow and drawling. There was marked edema of eyelids. Tendon reflexes in arms were barely perceptible. The knee jerks were only faintly or questionably present and patient seemed to have scarcely any voluntary movements of legs. Ankle jerks were not obtained. Tests for sensation and coordination were impossible to make. There was incontinence of feces and urine. At times there was retention of urine and catheterization was necessary. Trichiniasis was suspected.

Following the consultation relatives were questioned and it was learned that the husband who drove a truck for a transportation company was taken suddenly ill in St. Louis and was in a hospital there. The two children were with relatives and they were both sick. Further questioning revealed that all the family had eaten a sausage called Met-worst. This I believe is prepared without cooking, smoking being the only process used in preparing it. The husband's case was similar to that of his wife and a biopsy taken showed Trichina in the muscles. The two children were taken to Children's Hospital in Akron, Ohio. Biopsy from both showed many Trichina.

Biopsy was not done on the patient reported here. Lumbar puncture was not done due to her extreme condition. Calomel gr. 11 followed by mag. sulph. oz. 1 was given. Intravenous saline and glucose were given fairly regularly. Codein was used for the pains and to keep the patient quiet.

January 21, 1941, fever dropped to 104^{8}F. January 22, 1941, fever had dropped to 102 F. Stool examination on this date showed no parasites. The leukocyte count showed 17,000 with 6 per cent eosinophiles. January 23, 1941, Leukocyte count was 17,700 with 14 per cent eosinophiles.

On January 25, 1941, much improvement was noted. Swelling of eyelids had disappeared. The temperature was 99°F. The drowsiness had disappeared. Incontinence was at a minimum, and orientation was returning.

January 27, 1941, temperature was normal. Leukocyte count was 11,000 with 7 per cent eosinophiles.

January 30, 1941, all symptoms and signs were improved, and although patient was extremely weak, she was rational, oriented and cooperative.

January 31, 1941, she was allowed to go home by ambulance.

SUMMARY

It is apparent from the information available in the literature that trichinosis is a blood borne disease, which is capable of involving almost any organ of the body, including the central nervous system. It is the writer's opinion that the nervous system is involved much more often than we heretofore have believed. It would seem reasonable that with a blood infestation that some part of the nervous system could scarcely escape becoming involved in this more or less total process. Eosinophilia is a strong diagnostic point but is not always present, at least early in the disease. It is apparently of prognostic importance in that a low eosinophile count seems to denote a severe infection. The majority of the fatal cases reported have shown an extremely low or absent eosinophile count. Trichinosis should be considered as of first line importance amongst the parasitic diseases in this country inasmuch as various writers have shown that at some time or other at least 12 per cent of our population suffers a Trichinal infection. It is my feeling that trichinosis is another potent cause of encelphalomyelitis and that we should be more alert for the evidence of this condition in the presence of Trichinal infection or infestation.

CONCLUSION

It is realized that the case here presented has not been studied from the laboratory standpoint as thoroughly as it might be desired. However, my feeling is that in view of the fact that the husband and two children were shown to have Trichinal infections by actual biopsy, and that the symptoms in the patient were typically those of a Trichinal infection, that we were justified in making a diagnosis of trichinosis encephalitis. I might add that the cutaneous test on the patient made by Dr. Sauvageot was faintly positive.

A recent checkup on the patient shows her to have quite a bit of restlessness, irritability and fatigability, which were not present prior to the infection a year ago, and in addition to this she has considerable myalgia in the left deltoid muscle.

The husband of the patient complains of a great deal of pain in the lumbar region of his back, and this has been more or less constant since his illness of a year ago.

The son, age three, developed an internal strabismus of the left eye about six months after the Trichinal infection. He is said by the ophthalmologist to have very little vision in either eye.

The daughter, age nine, has shown a very noticeable let-down in the quality of her school work. There has been no subject in which she is particularly deficient but she is doing poor work in all subjects in contradistinction to excellent grades prior to the illness of one year ago.

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Patch Tests

Patch tests indicating an epidermal sensitivity may be positive in contact dermatoses, but usually are negative in atopic dermatoses. The fact that the tests are negative would tend to point toward atopic dermatitis. Patch tests positive in atopic dermatitis are usually papulopustular and discrete, as distinguished from a diffuse erythematous vesicular reaction in contact dermatitis.

Patch tests performed on skin adjacent to the eruption are more likely to give a positive reaction. Negative patch tests may be interpreted as follows: (1) the material tested is not the one causing the dermatitis; (2) the area tested may not be as hypersensitive as the affected area; (3) if the test is done very late, the hypersensitiveness may have disappeared; (4) the test is not reproducing the same conditions of moisture, heat, maceration, friction, light concentration, etc., as those in which the eruption occurred.

A delayed positive test may occur hours or days after the test is removed. If the test is positive after a long interval, seven days or so, it may indicate a sensitivity that has developed from the test material itself. Generalized dermatitis has been known to result because of a patch test done at the height of the eruption.—Irving Swartz, M.D., Syracuse, N.Y.S. Jour. of Med., Vol 49, No. 10, May, 1942.

Metallic Mercury

As resident in charge of the out-patient clinics at Lucas County Hospital, I reviewed the following case of a patient being treated in our cardiac clinic:

T.N., a 68-year old, white woman, was diagnosed on June 18, 1938 (by a competent cardiologist) as: Rheumatic heart disease; mitral valve stenosis; aortic and mitral valve insufficiency; auricular fibrillation; atrophic hepatic cirrhosis (secondary); mild hypertension (without renal function impairment) and has been treated with the usual cardiac regime and digitalis.

Frequently recurrent ascites necessitated 66 abdominal paracenteses of five to fifteen liters each, (total 500 liters), supplemented by 230 injections of mercupurin of 2 cc. each, semiweekly, weekly or biweekly, with good diuretic response from each injection, for the next three and one-half years (to January, 1942). This is equivalent to about 19.0 grams of metallic mercury.

At present she is well controlled and in good health, shows no evidence of renal damage or impairment, and is classified functional therapeutically as IIA. Since January, 1942, only two abdominal paracenteses have been done, the condition being controlled by injections of mercupurin alone.—Joseph A. Geer, M.D., Toledo, Ohio.

Production of Goitre and Myxedema by Sulfocyanates

J. LESTER KOBACKER, M.D.

SIX years ago a case of such striking characteristics came under my observation that it was indelibly impressed upon memory and, with new attention focused on similar features and problems today, it seems wise to review and report the case. It is unique in many features and may serve to fill some of the gaps in the gradually expanding knowledge of the thiocyanates and their actions.

The toxic manifestations of these compounds have been emphasized by all observers and a rather extensive list of them has appeared in communications on their clinical employment. It has been noted that the thiocyanate radical is stable in the body and that, as a matter of fact, dextoxification and elimination of cyanide take place through elaboration of this compound. The question of the reason for its toxicity propounds a serious problem. Its effect on the thyroid gland has been the subject of interesting observations by several groups and notably by Dr. J. H. Means and his coworkers.[1] The production of thyroid enlargement has been repeatedly observed and it is interesting to note that in an article on the production of goitre in rabbits by feeding of cabbage and other foods as part of an extensive group of such experiments Bruce Webster[2] remarked, "It would appear that there exists—a goitre producing substance—which produces its effect by a depression of tissue oxidation. The latest evidence suggests **that this substance is a cyanide**". This very astute observation fits in with the concept that small amounts of cyanide over a period of time may cause a derangement of iodine metabolism resulting in goitre, myxedema or both. In the case here reported, these features were produced on two occasions and thereby was established the causative role of the drug.

CASE REPORT

Mrs. G.B.S., aged 48, had been under treatment for an hypertension from September, 1933, until February, 1935. The blood pressure ranged from 150/100 to 230/126. Kidney function was apparently good. A moderate diffuse thyroid fullness was present.

February 19, 1934, the patient was placed on potassium thiocyanate 0.30 gms. three times a day. Blood pressure 180/110.

February 22, 1934, the pressure had fallen to 168/104 and the dose was reduced to 0.15 gms. three times a day.

July 6, 1934, because of weakness, the dose was reduced to 0.15 T.I.D. three days a week. This was continued until December 4, 1934, when she returned to daily dosage.

The Author

Dr. Kobacker, Toledo, Ohio, is a graduate of Harvard University Medical School, 1924; senior attending physician and cardiologist, Toledo, Lucas County, and Women's and Children's Hospitals, Toledo, Ohio.

December 28, 1934, the patient complained of lassitude and the dose again was reduced by omitting two days of dosage each week. She was seen January 15, 1935, and slight palpebral swelling was apparent but immediately thereafter she left the city and very shortly began complaining of loss of hearing, a lump in the throat and lethargy. A diagnosis of Bright's disease was made by the attending physician and she returned home February 19, 1935.

PHYSICAL EXAMINATION

The patient looked chronically ill and was pasty yellow in color. There were deep pouches beneath the eyes and the face appeared swollen. Mucous membranes were pale. Hearing was almost completely lost.

Skin—The forearms were very dry and rough and many areas of rough brownish pigmentation were noted. There was no pedal edema.

Neck—The previously noted thyroid fullness had increased markedly and a large isthmus was particularly prominent.

Heart—Slightly enlarged downward and to the left. Ausculatory findings were normal.

Lungs—Normal.

Abdomen—Normal.

Fluoroscopy—Confirms cardiac findings. No substernal shadow.

Laboratory Data—

Hgb.—76 per cent.

Blood Kline—Negative.

Cholestrol—255 mgm./per cent.

Blood N.P.N.—23 mgm./per cent.

Urine—(2 specimens)—Albumin and sugar negative. Sediment—Occasional W. B. C. 2-20-35.

Basal Metabolic Rate—minus 30 per cent.

P.S.P. Test—65 per cent in two hours.

At this time the mass in the neck was so large as to cause interference with free breathing and some consideration was given the possibility of having to relieve the condition surgically.

The patient was treated by omitting the thiocyanate, by thyroid gland and iron administration and although there was an initial drop in hemoglobin to 58 per cent, by April 23, 1935, or within two months, the patient felt well, had a normal hemoglobin, normal skin and hearing, and a basal metabolism rate of 5 per cent.

June 26, 1935—The patient reported feeling splendidly—hemoglobin was 90 per cent, blood

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Submitted February 7, 1942.

pressure 162/90. The basal metabolic rate was —3 per cent. The thyroid dosage had been reduced from 0.15 daily to 0.04 daily and now was omitted. The goitre had receded completely.

One year later on May 20, 1936, she was placed on sodium rhodonate (thiocyanate) 0.3 grams twice daily.

6-15-36—Reports feeling tired.

6-20-36—Extreme lethargy. Blood pressure 160/104.

6-26-36—Feeling of fullness in throat, hearing not acute and skin somewhat rough.

7-20-36—Face becoming typically myxedematous and all symptoms recurring. B.M.R.—24 per cent.

Following this critical experiment the patient was removed from thiocyanate administration and again was given thyroid for several months with satisfactory recovery.

(It is to be noted that this case was treated prior to the development of easier methods of estimating blood sulfocyanate and there was no such control).

SUMMARY AND CONCLUSION

A case is reported of a middle aged woman with a moderate thyroid fullness and an essential hypertension who was given sulfocyanates in average dosage over a long period. There occurred an acute severe myxedema with acute thyroid enlargement and total deafness. These symptoms all abated with omission of the drug and exhibition of thyroid. One year later a shorter period of administration produced a similar but less marked syndrome.

It appears that sulfocyanate may produce goitre and metabolic changes in man, similar to those described in animal experiments in which foods producing cyanide may be responsible for thyroid changes due to impaired oxidation of tissue.

336 W. Woodruff Ave.

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Diagnosis of contact dermatitis is dependent on a very careful history of contacts. The greater number of cases occur on the exposed surfaces. The patch test is confirmatory evidence and must be interpreted correctly.

The most common causes are poison ivy and related plants, alkali soaps, orris root face powders, mercury and iodine forming mercuric iodide, sulfur, the dye paraphenylendiamine (as present in furs, dresses, and hair dyes), adhesive plaster, Whitfield's ointment, cements, nickel, and novocain.

Diagnosis and treatment quite early are important to prevent possibility of a monovalent sensitivity becoming polyvalent.—Irving Swartz, M.D., Syracuse; N.Y.S. Jour. of Med., Vol. 49, No. 10, May, 1942.

Hypertension in Workers Over Forty Years of Age

An analysis of the blood pressure of nearly 5500 workers over 40 years of age is reported. In the 3665 males the incidence of hypertension (150 systolic or 90 diastolic or more) was 25.7 per cent between 40-49 years, 35.7 per cent between 50-59 years and 52.8 per cent between 60-90 years. The respective incidences in the 1788 females were 40.2, 51.3 and 71.4. These per cents are considerably higher than ever before published.

2. It is probable that at least this incidence of hypertension holds for the general population as a whole.

3. These figures show that hypertension is more common in women than in men, and that the incidence in both rises progressively with increasing age.

4. Hypertension within certain limits is a concomitant of the ageing process. Since the span of life is increasing yearly it will be found that millions of people in the general population have some degree of hypertension.

5. Since hypertension is such a common finding over the age of 40 it should not be considered a sole cause of rejection for employment, unless the hypertension is marked. This should serve to reassure both industry and labor.

6. No attempt has been made to draw deductions from our figures concerning morbidity, mortality or longevity.

7. In the etiological correlation of hypertension with disease the presented facts must be taken into consideration.—Arthur M. Master, M.D. and Simon Dack, M.D., Industrial Med., Vol. 11, No. 4, April, 1942.

Management of Cancer

The underlying principle of the modern management of cancer is coordinated team work. It is improbable that any one man can perform all of the duties and carry out all the techniques required. Any organization that sets itself up to manage cancer must contain at least a surgeon, a roentgenologist and a pathologist. This is the minimum requirement in personnel. There should also be added to the group an internist to advise concerning the diagnosis of cancer in deeper organs, and specialists who devote attention to each particular part of the body for advice in connection with tumors in special locations. It would be well also to have on such a team a chemist and a physiologist. These could offer many helpful suggestions concerning special features of this disease. Each member of the team should have equal standing. Each should be considered as a consultant who is able to add something to the full understanding of cancer and to its management in any particular patient.—James P. Simonds, M.D., Chicago; Ill. Med. Jour., Vol. 81, No. 5, May, 1942.

Chylous Mesenteric Cyst

Report of a Case

R. C. COSTELLO, M.D.

THE purpose of this paper is merely to record one more additional case of chylous mesenteric cyst recovered. The case does present some minor features not frequently reported. No attempt is made herein to completely review the subject of mesenteric cysts. However, a search of the available literature prompts me to repeat some criteria laid down by others, and thereby correctly classify this particular case. My further reason for writing this case is as has been previously stated by Loeb[1], "Mesenteric cysts are not surgical rarities. They are, however, of sufficiently uncommon occurrence to be of special interest to the physician and surgeon".

The history begins with Beneviene, a Florentine anatomist, in 1507 through Portal in 1803 to the year 1842 when Rokitansky published the first accurate descriptions of chylous mesenteric cysts found at autopsy. From 1850 to 1880, these tumors were occasionally met on the operating table. From 1880 on, Pean, Tillaux, Millard, and Merkeln, all German surgeons, made these tumors better known in medical literature. Since 1886, the following names appear as reporters: Augagner, Arekion, Braquehaye, Dowd, Judd, and approximately 25 other additional contributors. Up to August 1, 1941, it is stated by Loeb[1] that there have been about 550 to 600 cases of mesenteric cysts reported. It has also been written by Slocum[9] that not more than 200 were true chylous cysts. This is the only case of mesenteric cyst in 28,312 admissions in our hospital. Roller[13] estimates that mesenteric cysts occur less than one in 100,000 abdominal operations.

CASE REPORT

C.H., Age 21; Female; White; Single.

Admitted December 20, 1941, discharged January 1, 1942.

Working Diagnosis: Cyst of ovary with twisted pedicle—probably dermoid; **Final Diagnosis:** Chylous mesenteric cyst with acute and chronic inflammation. Chronic appendicitis with involution. **Chief Complaint:** Nausea. Generalized abdominal pain and cramps.

Present Illness: The patient says that yesterday she got up with pain in her stomach. The crampy pains were high up but not accompanied by nausea or vomiting. She noticed some soreness and pain in the right side when walking or bending over. The cramps have continued progressively worse, and she is now nauseated and very sick. Three months ago she had a similar attack of pain and soreness in the lower abdomen which lasted several days. Last evening she took milk of magnesia and today has had several bowel movements. The pain is now severe in the lower abdomen.

Past History: Usual childhood diseases—measles and pertussis. No operations. No injuries. Habits good. Employed at Porcelain Works. Menarche 14; regular; severe cramps; duration four to six days. Last menstrual period December 6th—normal—no amenorrhea previous to last regular period.

Physical Examination: Weight—normal 120; present 120. Height, five feet four inches. Temperature 101.4.

The patient is a 21 year old, normal, white female, of average development and nutrition. She is alert and cooperative. She lies flat without dyspnea or cyanosis. Head: Normal. Teeth good. Tongue coated. Tonsils small. Ears clear. No thyroid enlargement. Chest: Breasts normal, no discoloration. Breath sounds physiological. No rales. Percussion note normal. Cardio-vascular: Pulse 120, regular; blood pressure 110/80. The heart rhythm is regular—no enlargement—no murmurs. Abdomen: Moderate distension and dullness over the lower half. There is a large subumbilical central mass in midline, the size of a three-month's pregnancy. It is firm, hard. and very tender. It is not bladder. There is tenderness on both sides. Vaginal: Virginal—intact hymen. Rectal: Normal. The mass is not felt in the rectum. Extremities: No abnormalities.

Diagnosis: Cyst of ovary with twisted pedicle. probably dermoid.

Urinalysis: 12/20/41 (voided). Appearance—hazy amber; specific gravity, 1.018; reaction, pH 4.5; albumin, one plus; sugar, negative. Microscopic: few white blood cells; occasional finely granular casts; many epithelial cells; mucous.

Blood Count: 12/20/41. Red blood cells, 4,460,000; White blood cells, 17,500; Hemoglobin, 90 per cent; Polys, 78 per cent; Lymphocytes 13 per cent; Monos., 9 per cent.

12/31/41. White blood cells, 11,950. Blood Kahn, Negative.

Operation: Removal of mesenteric cyst—appendectomy. Date: 12/20/41.

Preoperative Diagnosis: Ovarian cyst with torsion of pedicle.

Postoperative Diagnosis: Large mesenteric cyst. Chronic appendicitis.

The Author

● **Dr. Costello, East Liverpool, Ohio, is a graduate of University of Pennsylvania, School of Medicine, 1931; member of staff, and pathologist to East Liverpool City Hospital.**

Submitted March 31, 1942.

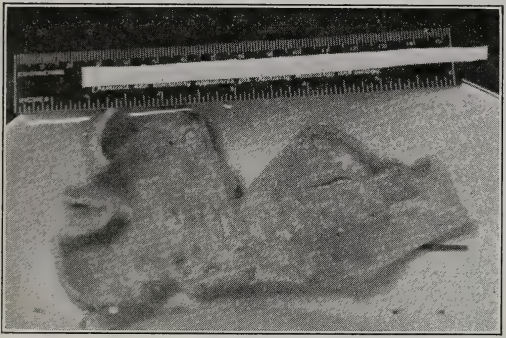
Anesthetic: Ether. Condition during anesthesia: Color, pulse, and respiration good throughout. Condition at close satisfactory.

Findings: Gross: The large mesenteric cyst arising from the root of the mesentery was covered with an omental apron. The latter was loosely adherent with fibrinous exudate. The mass was adherent in the pelvis. When freed, it was seen to lie in the arm of the attached associated small intestine which had a bluish discoloration. Appendix angulated and bound firmly with adhesions. The uterus very small and infantile—adnexae normal.

Operative Procedure: Median incision exposing large mass in pelvis covered with veil of omentum. The omental apron was dissected with finger. The mass was delivered outside. By sharp dissection, it was freed from the adjacent bowel and rich nutrient vessels ligated. The pedicle was clamped, cut, and ligated with anchor suture. The window in the omentum was closed with continuous suture. The appendix was easily accessible and obviously diseased. It was ligated, the stump cauterized and buried with purse string suture. The abdominal wall was closed in layers with continuous catgut—skin clips.

PATHOLOGICAL REPORT

Gross: This specimen consists of a tumor mass and an appendix. The appendix measures 4x.6 cm. It is a short, stubby tapered structure. The serosa is covered with fibrous connective tissue, and on section, the lumen is completely obliterated and the wall is white, solid, and fibrous. The cystic structure measures 10 cm. in diameter and is spherical in shape The serosa is hyperemic and covered with small flecks of white fibrin. The base or stump contains many visible blood vessels. On section, the wall is firm, edematous, and measures 1 to 5 mm. in thickness. The cyst is filled with ivory colored, putty-like material. The inner lining is smooth except near the base there are broad trabeculae.



Section of Tumor Mass.

Microscopic: Examination of sections of the cyst wall reveals a band of dense connective tissue richly supplied with blood vessels engorged with red cells. There are no evidences of muscle, epithelium, or other tissue elements. The best preserved section shows a marked focal and diffuse infiltration of lymphocytes. Other sections show a greater degree of edema. In the broad portions of the inner lining, there is marked degeneration with some necrosis and large clumps of polymorphonuclear leucocytes. Throughout this section, there are many scattered polys.

The appendix shows increased connective tissue in the serosa which is very irregular and contains focal collections of round cells. The muscularis is thick and compact. There is complete obliteration of the lumen and replacement by fibrous connective tissue and lymphocytes.

Pathological Diagnosis: 1. Chylous mesenteric cyst, the seat of acute and chronic inflammation. 2. Chronic appendicitis with involution and obliteration.

Progress: The immediate postoperative condition was satisfactory and fluids were well retained by mouth. The temperature, pulse, and respiration assumed normal proportions on the third day, and soft foods were taken. Progress continued and skin clips were removed on the seventh postoperative day. The patient left the hospital, on the tenth postoperative day, much improved.

DISCUSSION

This particular case fits well the definition that[1] "a true mesenteric cyst occurs between the two layers of the mesentery, or beneath the serosa of the intestine. It is not malignant, dermoid, or parasitic. It does not arise from any normally placed retroperitoneal organ or from embryonic rests, although it may have grown and pushed its way into the mesenteric space".

The pathological evidence reveals this cyst to be preformed between the layers of the mesentery, and to contain a fairly large accumulation of thick, concentrated and somewhat dehydrated chyle. Microscopic examination shows no remnants of epithelium. If present, they were destroyed by long continued pressure and present an acute and chronic inflammatory reaction.

The location of the cyst was in the lower ileum which seems to be the most common site. The tumor was lodged in the pelvic cavity closely simulating a pregnant state and covered with adherent omentum.

The symptoms were those of an acute abdominal disease and immediate surgical intervention indicated. The preoperative diagnosis was incorrect, but as is often the case, the unusual is not usually considered. Preoperative X-ray aid was not thought of.

Enucleation of the cyst was done since it appeared the method of choice once the mass was delivered and made readily accessible. Aspiration, intestinal resection, and marsupialization are mentioned as other procedure when enucleation is not feasible.

SUMMARY

A case of chylous mesenteric cyst occurring in a twenty-year old female with uneventful recovery is herewith reported. The size of this cyst is larger than average. Incarceration of this type of cyst in the pelvic vault accompanied by acute inflammatory changes, clinical signs, and supportive laboratory findings of an acute surgical abdomen is not common. The presence of an appendix definitely the seat of involution and chronic inflamation necessitated its removal at the time of operation.

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Contact Dermatoses

The diagnosis of contact dermatitis is made from the very sudden onset of a severe itching or burning dermatitis, varying from a simple erythema to papule, vesicle, pustule, and gangrene formation. The exposed parts of the body are affected more commonly. A careful history of contacts is very important and that alone may be sufficient at times for making the diagnosis. The history must include the time of onset, whether at work or at home or following a vacation, and information as to use of new cosmetics, plants in the home, animal pets, use of insecticides, and hobbies. Repeated talks may be necessary. The patient may mull over in his mind what things have been disturbing him with itching, for example, and suddenly strike on the right substance as the irritant contact. An important aid in confirming the diagnosis is the epidermal patch test.

In the differential diagnosis an exudative neurodermatitis must be excluded. This condition does not show vesicles and is more inclined to be patchy. The intense edema of the eyelids and genitalia seen in a contact dermatitis is not seen in neurodermatitis. The eyelids are not involved as a rule in neurodermatitis or atopic dermatitis.—Irving Swartz, M.D., Syracuse; N.Y.S. Jour. of Med., Vol. 49, No. 10, May, 1942.

Surgery in the Aged

It would seem fair to assert that until about the beginning of the past decade major surgical procedures, in persons older than 60 years, were regarded as more or less hazardous undertakings. Of late, however, the attitude has been altered; it is the aim of this paper to mention certain features in the management of patients that have been of definite value in changing this viewpoint.

In the elderly, technical skill and good surgical judgment play a most important rôle. The nicety of surgical judgment as to when, what, and how much to do is the keynote to success in these patients. One has not only the ravages of the present illness to consider but also the residue of previous disease, as well as the decreased reserve found in advanced age.

It becomes apparent, then, that one of the prime considerations in the surgical treatment of the elderly is the evaluation of the patient's general health, physical condition, handicaps, and defects. It is here that the loss of resiliency due to old age, as reflected in the cardiovascular, respiratory, and renal systems, will be estimated and supportive or corrective measures begun. Every consideration should also be given to the psychologic side of the patient. The surgeon should secure acclimatization of the patients to their new, unfamiliar surroundings; sustain an attitude of cheerfulness, optimism, and encouragement; and cater to their whims and fancies regarding alcohol, smoking, and clothing. These preoperative therapeutic measures, physical and mental, form the basis for the successful termination of operative procedures in the aged.

In the matter of anesthesia, there has been no general agreement as to a universal type to be used in elderly patients. Some have indicated the advisability of avoiding inhalation types of anesthetics, while others have found this method entirely satisfactory. In general, we believe this is a matter to be decided by the individual case at hand. Our experience has indicated that ethylene-ether-oxygen anesthesia or the use of intravenous sodium pentothal-oxygen will prove satisfactory for the great majority. In any event, there can be no divergent view with those who have stated that a good anesthetic and a good anesthetist are very much to be desired.

Attention should be paid to the matters of hydration, oral hygiene, cardiac disability (should it exist), and the typing of transfusions, should they be needed. These facts have all been emphasized by other authors.—Raymond L. Evans, M.D. and Sam. N. Key, M.D., Sayre, Pa.; Pa. Med. Jour., Vol. 45, No. 8, May, 1942.

Postoperative Atelectasis: Presentation of Four Cases

J. W. McCALL, M.D., AND M. S. FREEMAN, M.D.

MASSIVE collapse of the lung was first recognized and differentiated from lobar and lobular pneumonia by Schenk in 1811. His findings were confirmed repeatedly in the next 20 years and in 1832 the condition was given the name atelectasis by Joerg. By the middle of the century various investigators, notably Traube in 1836, and Mendellsohn in 1884 had produced atelectasis experimentally by artificial occlusion of a bronchus. It was then that W. T. Gardner of the University of Edinburgh in 1850 formulated the theory that atelectasis was caused by a mucous plug which obstructed the bronchi and acted as a ball valve allowing air to escape during expiration but preventing the access of air on inspiration. Credence was lent this theory by Bartels who demonstrated mucous secretion in the bronchi corresponding to the atelectatic part of the lung at autopsy.

Atelectasis was first recognized clinically in 1886 by Wm. Pasteur of Middlesex Hospital, London, who collected 14 cases in the next three years.

The invention of the bronchoscope in 1897 and its improvement by Jackson in 1904 offered a new method of clinical investigation and treatment. However, it was not until 1925 that Tucker of Philadelphia demonstrated by bronchoscopic examination the cause of postoperative massive collapse in a case to be complete obstruction of the main bronchus and its subdivisions tributary to the area of atelectatic lung by tenacious secretion.

INCIDENCE

As so aptly stated by Snyder[1] the incidence of postoperative atelectasis varies with the diligence with which it is sought and the diligence with which prophylactic measures are enforced. It is variously reported as accounting for 10 to 70 per cent of all postoperative complications. Brunn and Bill[2] reported 65 per cent of all pulmonary complications as atelectasis. Christopher and Shaffer[3] at Evanston Hospital reported 12,494 operations over a five-year period with 77 postoperative pulmonary complications, about 20 per cent of which were atelectasis. In a series of 90 cases of postoperative atelectasis treated by Perrone[4] atelectasis occurred in 65 after cholecystostomy, cholecystectomy or gastrojejunostomy. Most cases, i.e., 74 per cent occurred from 36 to 48 hours after operation, and 38 per cent were found to be in the right lower lobe.

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PATHOLOGY

On opening the thorax at autopsy, the atelectatic lung is smaller than normal, completely airless, and dark in color. If placed in water it sinks. The decrease in size of the lung is compensated for by traction displacement of the surrounding structures. The heart and trachea are drawn to the affected side and may lie completely within it. The diaphragm on the affected side is elevated and the sides depressed. The contralateral lung and the unaffected portion of the diseased lung are emphysematous. On section considerable thin serum can be expressed. The bronchus and its divisions tributary to the involved area are occluded by thin tenacious mucoid secretion. Microscopic sections show the alveoli collapsed or partially so. Collapsed alveoli have their lining epithelial cells closely packed together, and those partially collapsed are filled with thin fluid containing few phagocytic cells. The walls of the alveoli are moderately edematous with little or no inflammatory reaction. Some of the bronchioles are collapsed, others contain thin fluid and their walls are edematous. The capillaries, arterioles and venules are dilated and filled with red blood cells.

ETIOLOGY

Many suggestions have been made relative to the predisposing causes which act as forerunner of postoperative atelectasis. Clegg[5] notes that postoperative loss of muscle tonus, splinting of muscles from pain, meteorism, tight abdominal binders and air beneath the diaphragm contribute to elevation of the diaphragm and reduc-

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Submitted February 24, 1942.

From the Otolaryngological Departments of St. Luke's and Huron Road Hospitals, Cleveland, Ohio.

tion of vital capacity. Spasmodic reflex of the bronchioles may cause their occlusion, thereby permitting future absorption of air in the segment of lung involved. As noted above, elevation of the diaphragm may cause active compression of a lower lobe of a lung. Focal infections in the upper respiratory tract, local and general infections, and debilitated states may be active predisposing factors. Finally, preoperative and postoperative medications may contribute in that atropine tends to cause inspissation of secretions, and morphine tends to depress the cough reflex. Sommer[6] emphasizes blockage of bronchi by normal or abnormal secretions, i.e., saliva, infected material, and blood clots or vomitus, or secretions from the bronchi. Gordon[7] after an analysis of etiological factors believed that bronchial obstruction produced by an accumulation of mucus and the effects of respiratory infections are the most potent factors. Perrone[4] thinks that posture, use of narcotics, and tight binders are important predisposing influences, and with Eversole[8] believes that the type of anesthetic agent employed is apparently not significant in the production of postoperative pulmonary complications. However, Sircar and Boston[9] found it difficult to disassociate the responsibilities of anesthesia from those of surgical procedure in cases of atelectasis.

SYMPTOMATOLOGY

Symptoms vary with the suddenness of onset of bronchial plugging, the size of the plugged bronchus, alterations in intrapleural pressure and disturbance in position of mediastinal structures. The symptoms may be so slight that the condition is discovered incidentally during physical examination.

Usually the onset is sudden within the first three operative days and is ushered in with a sharp rise in temperature, 102° to 104°, rapid pulse and respiratory rate of 30 to 40 per minute. There is dyspnea, orthopnea, cyanosis and pain in the chest. Pain is influenced by the location and extent of adhesions. Sputum is scant at first, but becomes profuse, mucopurulent, and may contain blood. The white blood count ranges between 15,000 and 20,000. Sommer[6] emphasizes the importance of the early "wet" unproductive cough.

PHYSICAL FINDINGS

The patient appears cyanotic, anxious, and dyspneic. Physical signs in the chest vary with the amount of lung involved. In a typical case, the usual findings are: on inspection, the affected side appears more or less fixed, and the intercostal spaces are narrowed and depressed. On percussion, the affected side is found to be dull or flat, the diaphragm high or immobile, and the area of cardiac dullness is shifted towards the affected side. On auscultation, breath and voice sounds are absent or suppressed with a bronchial quality. Later rales may be heard. The unaffected side is hyper-resonant and the breath sounds are increased. In children, scoliosis is often noted.

X-RAY FINDINGS

The half of the diaphragm on the affected side is elevated, the rib interspaces are narrowed, the mediastinal structures deviated to the affected side, and the lung tissue gives a dense homogenous shadow. The space lost by atelectasis is taken up by a compensatory emphysema of the uninvolved lung.

DIFFERENTIAL DIAGNOSIS

Traction displacement of the heart with unilateral elevation of the diaphragm, serve to distinguish atelectasis from pneumonia, pneumothorax, hydrothorax, dilatation of the stomach, ileus, peritonitis, pleurisy, pulmonary embolism with infarction, cardiac failure, coronary thrombosis, dextro cardia, massive tuberculosis, and diaphragmatic hernia with which conditions it has been confused.

PROPHYLAXIS

Preventive measures are aimed at the maintenance of normal respiratory excursions, normal blood volume, normal body temperature, and the avoidance of dehydration. Effective active measures are the administration of mixtures of CO_2 and O_2, intravenous fluids, enforcement of deep breathing regularly, frequent changes in position and the use of expectorants.[5,6]

The time to think of atelectasis is before, during and after operation, and there are many things to avoid in order to decrease the frequency of its occurrence.[9,5] An attempt should be made to avoid operating in the presence of respiratory infections; the use of atropine, since it thickens secretions, the aspiration of a foreign body or secretions during vomiting, and with inhalation anesthesia, pressure on the patient's chest by assistants or instruments, prolonged operating time, postoperative distension of bowel and stomach, and frequent large doses of morphine.

TREATMENT

An attempt should be made to dislodge the offending mucous plug by placing the patient on the unaffected side with the head low, rolling him back and forth and slapping over the affected area. Deep breathing is enforced by inhalation of a CO_2—O_2 mixture, and coughing is encouraged. Morphine, in sufficient doses to control pain, but not to depress the respiratory center and cough reflex, is advocated. For cases not responding to the aforegoing, bronchoscopy[12,5,4,7,6] is advocated. Clerf[10] believes that as soon as postoperative atelectasis is discovered, the secretions should be removed immediately, because allow-

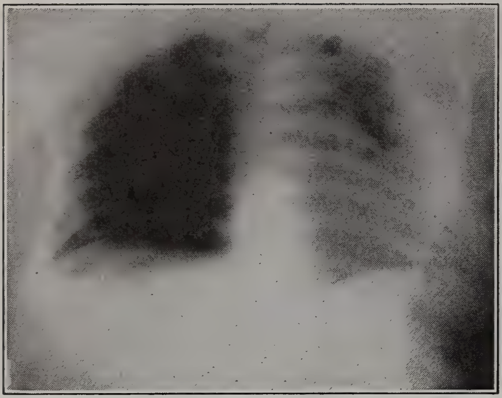

Fig. I

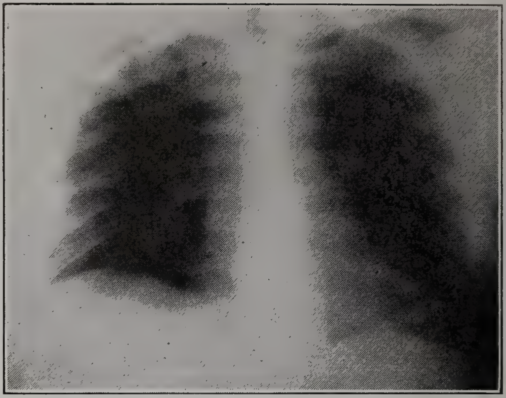

Fig. II

ing them to remain predisposes to secondary pneumonitis or pulmonary suppuration. Lahey[8] points out that years ago there was much apprehension concerning the introduction of a stomach tube in a patient who had had a high subtotal gastrectomy. It was thought that the retching and mechanical trauma to the suture line following introduction of the tube produced a definite hazard as to the dangers of leakage. This has proved to be untrue, and likewise, there has been undue apprehension regarding the effects upon a sick patient of the introduction of a bronchoscope and suction bronchoscopy.

According to Tucker[11] it is not possible to aspirate the obstructive secretion from every small bronchus but when air gets into a lobe of the lung, and can find its way into the obstructed air vesicles, the patient can cough out the secretion that could not be removed at bronchoscopic aspiration. The essential thing is that the larger bronchi be opened by aspirating the obstructing secretion, allowing the air to get in. Following bronchoscopy, it is necessary to maintain drainage by continuance of previously mentioned therapeutic measures.

PROGNOSIS AND MORTALITY

Under proper treatment complete relief of symptoms can usually be expected within a few days, although in some cases a cough persists for weeks. Relief of the initial distress is usually abrupt, with a fall in temperature, pulse, and respiration in a matter of a few minutes or at most only a few hours.[4,5]

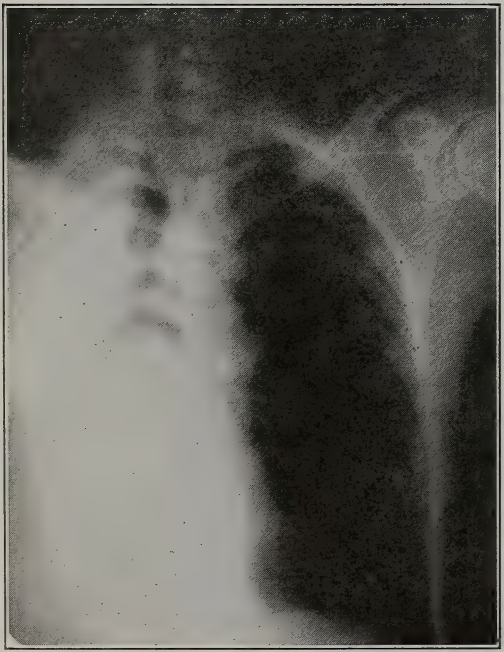

Fig. III

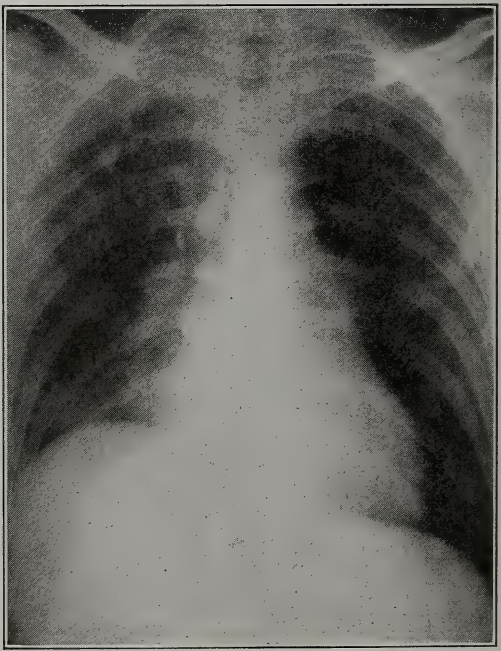

Fig. IV

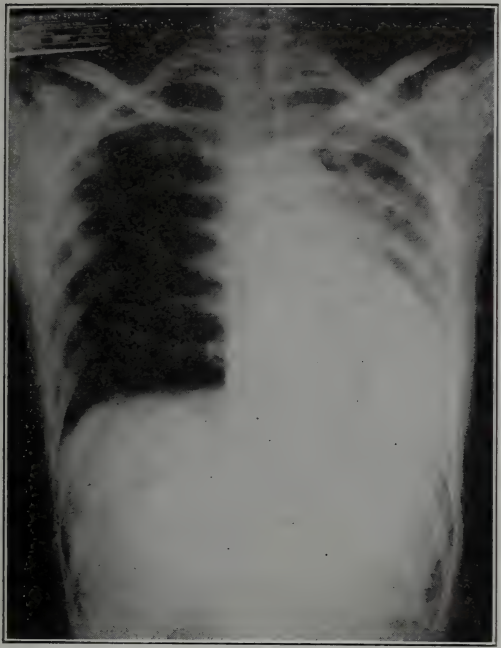

Fig. V

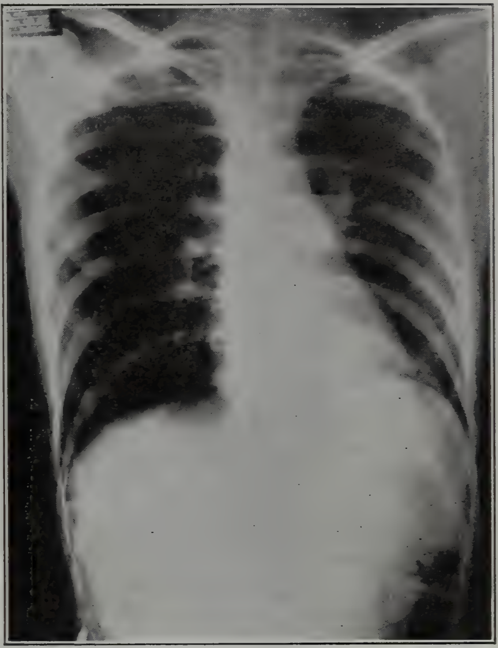

Fig. VI

The mortality of atelectasis per se is low, but postoperative atelectasis is of more than academic interest because it may be complicated by either broncho-pneumonia or a lobar pneumonia with fatal results.

REPORT OF CASES

Case I—DeN, 34 years old, white male. Admitted for right inguinal hernia. Operation herniorraphy right on September 20, 1939, by Dr. J. J. Marek. On September 21, 1939, had cough and pain in back. Temperature 101.6°, pulse 96, respiration 34. Noisy rales over both sides. X-ray (Fig. I) shows haziness of left lung field. Mediastinum to left. Narrowing of intercostal spaces on left. Bronchoscopy done with aspiration of mucus plug from left main stem and tributary bronchi.

X-ray film taken immediately after (Fig. II) showed haziness to be less and intercostal spaces to have widened. Mediastinum still to left. Marked relief of cyanosis and respirations normal.

Case II—Sk, 29 years old, white male. Operation: Left uretero lithotomy July 3, 1941, under spinal anesthesia, by Dr. V. C. Laughlin. On July 6, 1941, had pain in right anterior chest. Some dullness over right supermammary region. Breast sounds distant, few rales. Dullness increased in short time. X-ray (Fig. III) on July 7, 1941, shows dense cloudiness throughout entire right lung field with retraction of intercostal spaces. Mediastinum displaced to right. Left lung field increased in radiability. Diagnosis: Massive atelectasis on right. Bronchoscopy and aspiration of large mucus plug in right main stem bronchus on July 7, 1941, with rapid relief of cyanosis and shock. Checkup film (Fig. IV) on July 8, 1941, shows almost complete re-expansion of right lung.

Case III—H.S., 23 years old, white female. Admitted August 28, 1941. Diagnosis: Nephrolithiasis, acute suppurative pyelitis. Operated and referred by Dr. V. C. Laughlin. Operation: Right nephrectomy September 4, 1941. On September 9, 1941, had pain in chest (left). Temperature 103°, pulse 112, respiration 36. X-ray (Fig. V) showed mediastinal structures displaced to left, left intercostal spaces narrowed and left lung field to be increased in density. Increased radiability of right lung. Following morning after bronchoscopy and aspiration of mucus from left main stem bronchus. Temperature 99.8°, pulse 96, respiration 20, with considerable subjective relief. Checkup film (Fig. VI) shows mediastinum restored to normal position with expansion of left lung.

Case IV—M.G., 50 years old, white female. Admitted October 17, 1941. Fibro myomata uteri. Operated and referred by Dr. Pirrone. On October 18, 1941, had total hysterectomy. The following day had dyspnea. Temperature 40°, respiration 28, pulse 108. Trachea deviated to left. Decreased expansion of chest on left. Percussion note dull over lower left lung with absent fremitus and diminished breath sounds. X-ray (Fig. VIII) shows collapse of lower left lung with retraction of heart and mediastinum to the left. On October 20, 1941, had bronchoscopy and aspiration of several mucous plugs from left stem bronchus. Within several hours patient has marked subjective relief and physical examination showed re-expansion of left lower lobe. X-ray (Fig. VIII) on following day showed diminution of density in left lower lobe.

SUMMARY

1. The predominating postoperative pulmonary complication is atelectasis, which may involve a portion of a lobe, a whole lobe, or a whole lung.

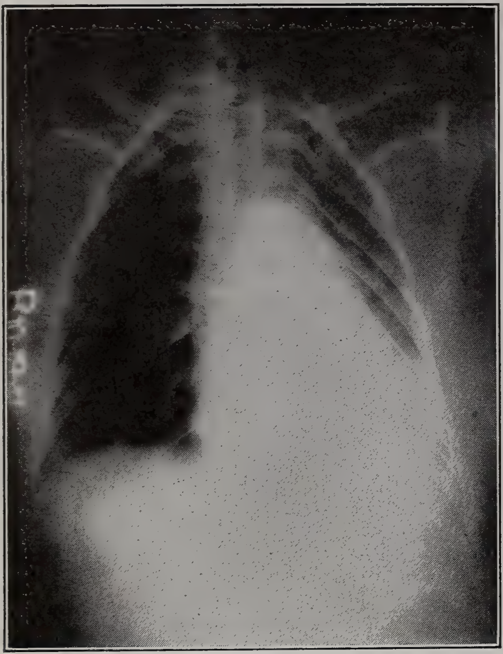

Fig. VII

2. Early recognition is important for two reasons: (a) it allows an earlier institution of therapy and facilitates a more prompt return of the atelectatic lobe to normal; (b) it prevents the more dreaded postoperative pneumonia which may occur in atelectasis of longer duration.

3. Bronchial obstruction is the most important factor in producing atelectasis. Its removal can be achieved most satisfactorily by bronchoscopic aspiration.

4. Patients receive almost instantaneous relief.

610 Rose Building.

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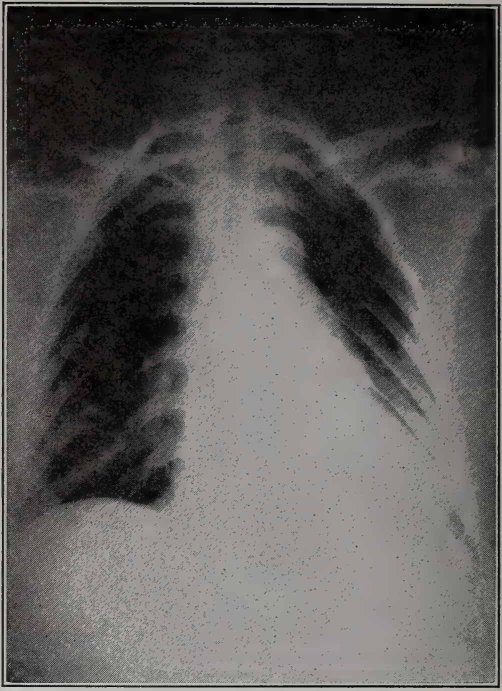

Fig. VIII

Human Plasma

The administration of whole blood should be limited to cases of:

1. Severe hemorrhage.

2. Certain blood dyscrasias, especially those with hemorrhagic tendencies.

3. Acute poisonings which decrease the hemoglobin carrying capacity of the erythrocytes, such as carbon monoxide and nitrobenzol.

4. Various forms of secondary or hypoplastic anemias as a pallative.

However, as Strumia has also emphasized, numerous studies have shown that plasma is more effective than whole blood in the treatment of:

1. Shock—unless accompanied by extreme blood loss.

2. Severe infections, as a means of supplying specific and non-specific antibodies.

3. Various conditions associated with hypoproteinemia, such as nephrosis, chronic infections, repeated paracentesis, severe burns, ulcerative colitis, and certain liver diseases.

4. Many blood dyscrasias, especially those characterized by hemolytic tendencies or fibrinogen deficiency.

5. Cerebral edema accompanying various injuries and toxemias.

6. Emergency treatment of acute hemorrhage until whole blood becomes available.—John Henderson, M.D., Philadelphia; Rocky Mountain Med. Jour., Vol. 39, No. 4, April, 1942.

Scabies: Treatment

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A DEFINITE diagnosis of scabies as the primary disease is assumed. Treatment depends upon the findings. If only mild secondary elements show, or none, therapeutics and management will be directed simply to destroying the Acarus Scabiei. We use some appropriate parasiticide, but choose it as to strength and kind, with consideration for its chemical nature, the age of the patient, and the probable degree of tenderness of his skin. Complications, however, may call for different management.

UNCOMPLICATED SCABIES

Few people will appeal to the physician until after the classical nocturnal itching has produced great annoyance. So, in practically all instances, secondary excoriations with consequent infection will be present. It is assumed that these are not bad, and that self-medication has not been damaging.

For scabies, the time-honored drug is sulfur. An old and efficient prescription for adults is made up of 1 per cent phenol, 10 per cent sulfur precipitated, 2 per cent balsam of Peru, and 12.5 per cent lanolin in unguentum aquae rosae. Other bases, such as Aquaphor ointment, are equally good, and by some are preferred. Children under 10 or 12 years of age, and others with tender skins, require milder ointments, such as sulfur, ranging from 3 per cent up to 6 per cent, balsam of Peru, 0.5 per cent to 1 per cent, and phenol 0.5 per cent. A patient may rarely be sensitive to these drugs, but in practice trouble seldom arises if applications are not repeated longer than called for by the instructions.

At bedtime, the patient takes, or is given, a warm bath using any mild soap. Fairly thorough soaping, taking plenty of time, moderate use of the turkish wash cloth, then careful rinsing to remove the soap, and gentle but complete drying, prepare the skin for the medicament.

The ointment is immediately applied, covering every square inch from the chin line in front and the hair line behind, down to the ends of the fingers and toes. Only a thin film is needed and it need not be rubbed in. The whole performance is repeated, including the bathing on each of the next two nights. The medicine remains on until the next night after each of the first two applications, but only until the next morning after the third, when a fourth bath serves to remove the ointment. Immediately after this bath, cold cream may help to reduce dryness and to allay any irritation that may have resulted. Indeed, if irritation is noticeable or pronounced, the cold cream at night and either calamine-zinc oxide lotion or 25 per cent glycerite of tannin in witch hazel, in the daytime, may be advisable.

Up to this time the same underwear and, if practicable, the outer clothing should have been worn. But now, the day after the third treatment, these and the bed clothing should be changed for clean, boiled underwear and bed linens, and boiled or dry-cleaned outer garments.

The routine is omitted on the fourth and fifth nights. On the sixth and seventh nights, in order to destroy parasites from newly hatched ova, the same details of baths and applications as of the first three nights are repeated. The next morning after the seventh night, a bath only should end the process.

Recurrence can be prevented only by eradicating all parasites lurking in the environment. Therefore, as already stated, on the day after the third bath, both personal and bed clothing should be changed, and boiled underwear and bed linens substituted, and if the outer garments are changed they should have been just previously boiled or dry-cleaned. After the final bath, the day after the seventh night, every garment worn by the patient or hanging in the same closet or otherwise having had contact with the Acarus Scabiei should be boiled or dry-cleaned. All the bedding should be dry-cleaned, or at least well sunned. The rugs, where the patient may have walked bare-foot, and other furnishings at all likely to harbor the parasite, should be washed with soap and water, and after they have dried, it is well to go over them with a cleaning fluid. Both imagination and thoroughness in this cleanup will pay.

Faithful carrying out of the baths and local applications, while essential, should be done with discrimination. For example, if there occurs irritation over small areas, skip them and apply cold cream on such. Then perhaps it will be safe to use the ointment on these areas the next morning or the next night after the bath.

COMPLICATIONS DUE TO SELF-MEDICATION

The most important complications are those due to self-medication and those due to secondary infection. For irritations due to sulfur or other drugs self-prescribed, the treatment is to discontinue all drugs likely to cause irritation, and cleanse the skin. This may be done with starch and soda baths followed by olive oil inunction

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Dr. Norris was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

and the application of bland, soothing ointments and lotions.

For secondary infection, the use of a 3 per cent ammoniated mercury ointment or half-strength quinilor ointment may suffice. Care must be used to prevent these ointments from mixing with sulfer ointments as a mercury-sulfide may form, which is itself quite irritating. If there is secondary dermatitis or pustulation, as of the fingers or hands, it is well to use, in addition to the mercury ointments, hot potassium premanganate (1-4500) soaks or warm bichloride (1-4000) soaks, two to four times daily for 15 to 20 minutes each time.

The disease often occurs on the faces of young infants. This calls for very mild concentrations of the formula. A thin film may be applied repeatedly, using care not to get it into the eyes.

Other drugs are used because they are considered more convenient, less messy and tedious, and perhaps more efficient. No matter what drug or combination of them one chooses, the preparation of the skin by bathing, somewhat as already outlined, is necessary. And, furthermore, the clearing away of the parasite from the envirnment is a "must".

One form of sulfur application is that called "Sulfur Foam", a preparation of 15 to 20 per cent sulfur in soap. This is made to lather on the wet skin and allowed to dry. It is repeated three nights.

Another sulfur preparation, the so-called "one night" treatment is what is known as Danish ointment, sold widely under the trade name, "Scabecide". This is efficient, but not infrequently it causes considerable irritation, especially among infants and those with tender or already irritated skins.

Pyrethrum ointment is said to be non-irritating and its odor is not offensive. It is used in strength of about 0.5 per cent to 0.75 per cent. It is applied following hot baths, for seven consecutive nights. It is said to be more than 80 per cent efficient (Sweitzer and Tedder).

Benzyl benzoate 25 per cent in a more or less vanishing cream, applied after one bath, is said to cure half the cases.

Irritation may occur if the patient unwisely keeps on applying any remedy. This frequently happens because of persistent itching. It must be emphasized that excessive use causes plenty of trouble, no matter what the remedy.

Leprosy is an important health problem in Brazil, because of the large number of cases and the slightly increasing trend. It is estimated that there are at least 45,000 lepers there, or about 100 per 100,000 population. There are now 16 modern leprosariums in Brazil, where 15,173 patients were isolated on December 31, 1941.

Tubercle Bacilli in the Hospital Room

Cultures were made from swabbings of bedside tables, lamps, bed frames and other articles in rooms occupied by patients at Barlow Sanatorium, also from room dust and sweepings and from cotton filters through which room air had been sucked. Uniformly negative results led to speculation as to the effect of daytime roomlight on living tubercle bacilli.

Review of the literature seems to sustain the statement of Park and Williams that: "Tubercle bacilli in sputum when exposed to direct sunlight are killed in from a few minutes to several hours according to the thickness of the layer and the season of the year. They are usually destroyed by diffuse daylight in from five to ten days. Dried sputum in rooms protected from abundant light has occasionally been found to contain virulent tubercle bacilli for as long as ten months."

For the present experiment, suspensions of virulent human tubercle bacilli in water or in sputum were spread on cover slips in 0.05 cc. amounts and allowed to dry. Some of these preparations were placed in a small unheated room in the light of an unglazed but screened north window through which the sun was known never to shine; others were kept in complete darkness within a cardboard box inside a second such box which in turn was kept in a table drawer of an unheated room.

A second set of tests was run in the early spring during cloudy and rainy weather and a third set of tests in mid-summer. The following winter, viability was tested also in the electric refrigerator.

1. Dried tubercle bacilli survived unfiltered north roomlight from four hours to five days under varying conditions. They were non-viable, according to the methods of recovery used, at one to 12 days; not established in one case.

2. Viability in the dark was from less than 40 days to between three and one-half and five months.

3. Viability in the refrigerator was between six and one-half and 14 months.

4. Tubercle bacilli were more readily recoverable and after longer periods of exposure when the dose deposited was larger.

5. They live longer in smears made from sputum than from water suspensions.

6. They lived longer in the winter than in the spring and summer.

7. Variations in relative humidity and periods of partial cloudiness had no effect on viability.

8. Unfiltered daytime roomlight probably plays a very important rôle in preventing cross-infection and in protecting the employees of tuberculosis sanatoria.—C. Richard Smith, M.D., Amer. Rev. of Tuber., March, 1941.

Fatal Uremia Following Single Exposure to Carbon Tetrachloride Fumes

WILLIAM F. ASHE, M. D. AND SEATON SAILER, M. D.*

Case 108350. The patient was a white male, married, 44 years of age, a painter and wall cleaner. He was admitted to the Cincinnati General Hospital on February 23, 1942, complaining of complete anuria for the past three days.

History: This man had been perfectly well and without complaint of any sort until three weeks prior to admission, at which time an upper respiratory infection developed, complicated by sinusitis. Symptoms of these two ailments had persisted until the time of admission, but were mild in nature and in no way interfered with his occupation. Five days prior to admission he was working in an elevator shaft, cleaning machinery with carbon tetrachloride. After an unspecified period he became nauseated, vomited, and left the job for a few minutes, but soon felt all right, and went back to work. He again became ill and went home. The total known exposure was for approximately four hours. The patient felt fine on the following morning, but because his bowels had not moved, he took two calomel tablets. A few hours later he experienced cramping abdominal pain but had no bowel movement. On the following day he took an enema. That day he noticed decreased urinary output in spite of adequate fluid intake. In the 48 hours prior to admission he had had no urinary output at all. On the day before admission he began to notice puffiness and swelling of the feet, ankles and face. Nausea, vomiting, and some anorexia reappeared on the day before admission.

The past history is irrelevant except that in 1938 he was admitted to the Cincinnati General Hospital for a bilateral inguinal herniorrhaphy. At that time three blood pressure readings were as follows: 140/90, 155/94, 150/94. The urine at that time was normal except for a specific gravity of 1.008. The heart was not enlarged and there were no other positive physical findings. The patient was a moderate user of alcoholic beverages.

Physical Examination: Temperature, 98.4°. Pulse, 76. Respirations, 19. Blood pressure, 180/120. The patient was a middle-aged man of normal development and nutrition whose face was slightly flushed and puffy, but he did not appear to be acutely ill. Examination of the head and neck, including the eye grounds showed nothing unusual except slight injection of the mucous membrane of the nose. A few moist rales were heard at the lung bases. The heart was thought to be normal in size and there were no murmurs. There was slight costovertebral tenderness on the left. There was a moderate amount of pitting edema about the feet, ankles, and sacrum. The remainder of the physical examination gave negative findings.

Hospital Course: The patient's condition did not change during the first 24 hours, and his urinary output was only 50 cc. In the second 24 hours the urinary output was 30 cc. and acute pulmonary edema developed, which was successfully treated by the withdrawal of 500 cc. of blood. The urinary output improved slightly in the next two days but the venous pressure again rose and pulmonary edema developed on the fifth day. It was again successfully treated by venous section and intramuscular injection of magnesium sulphate. The patient was digitalized on the sixth hospital day. From then until the time of his death, his circulation was considered normal. On the seventh hospital day he became semistuporous and confused. The blood creatinine level which had always been high rose to 7.5 mg. per cent. Muscular twitching developed and uremic snow appeared on the face. By the tenth hospital day he was having clonic convulsive movements and other associated symptoms of profound uremia, in addition to some bilateral bronchopneumonia. By this time the urinary output had returned to normal but evidences of increasing uremia persisted. The temperature rose rapidly during the tenth and eleventh hospital days and the patient died in coma early on the twelfth hospital day.

Laboratory Data: X-ray examination of the chest subsequent to the first attack of pulmonary edema showed the heart to be moderately enlarged. Some evidence of pulmonary edema remained. The blood and spinal fluid Wassermann tests were negative. The remainder of the laboratory data has been summarized in Table 1 for convenience.

The clinical diagnoses were: Chronic glomerular nephritis with superimposed toxic nephrosis, probably due to carbon tetrachloride; terminal bronchial pneumonia.

PATHOLOGICAL DESCRIPTION

An abstract of the findings at the necropsy performed by Dr. W. C. Cannon eight hours after death is as follows:

The epitrochlear lymph nodes were palpable bilaterally. The mucous membranes of the mouth were dry and lusterless. Solidification of lobular distribution was found in all three lobes of the right lung and in the lower lobe of the left lung. The hilic lymph nodes were slightly enlarged bilaterally and contained small calcium deposits.

The heart weighed 425 gm. An 8 x 5 mm. subendocardial hemorrhage was found in the right atrium 15 cm. above the tricuspid valve. All other endocardial surfaces were intact. The coronary arteries appeared normal.

The aorta also presented a normal appearance save for a few small intimal plaques.

The kidneys were of like size and contour and together weighed 390 gm. Their stripped convex surfaces were smooth, nongranular, and a dark red. Multiple coronal sections showed both cortices to be slightly swollen and of mottled, smoky, reddish yellow hue. The medullary pyramids were a deep red and sharply defined. The

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This is the eighth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

TABLE 1

HOSPITAL DAY

		1	2	3	4	5	6	7	8	9	10	11	Remarks
URINE	Output	50 cc.	30 cc.	40 cc.	200 cc.	390 cc.	150 cc.	125 cc.	1350 cc.	1600 cc.	1200 cc.	1650 cc.	Much urine lost last 2 days
	Albumin	4+	3+	3+	3+	3+	3+	2+	2+		trace	trace	
	R.B.C.	20	15	3	occas.	occas.	occas.	occas.			1-3	1-3	cells per h.p.f.
	W.B.C.	10	10	60	5	10	20	20	20		10	3	" " "
	Casts	0	0	0	few	many	rare	rare	0		0	0	" " "
	Sp. G.			1.010			1.012		1.015		1.015	1.012	
BLOOD	R.B.C.	4.1			4.89								millions
	W.B.C.	7000			8250	12,700	10,000	21,000			25,650	28,550	thousands
	Urea N.	50	67	58	91	58	96	62			149	135	mgm. per cent
	Creatinine				6.6	6.2	7.5	7.5			7.5	6.6	" " "
	Chlorides				395	402	399	417			470		" " "
	Icteric Index					7					11		" " " units
	Venous Pressure			23		24					7.5		cm. H_2O
	Blood Pressure	160/100	165/105	138/86	158/80	185/100		140/80	176/94	170/86	170/96	170/90	mm. Hg.

mucosal surfaces of the calyces and pelves were slightly congested. The ureters were intact. Some congestion of the mucosa was noted about the trigone of the urinary bladder.

The liver weighed 1780 gm. and was covered by a smooth, thin capsule. On section there was some bulging of the parenchyma above the cut edge. The tissue was everywhere a yellowish tan, glazed, and mottled with irregular dark pink zones. It was friable in consistency. The gall bladder was of average size and lined with velvety, dark green mucosa. The bile passages were patent and of normal calibre.

The spleen weighed 300 gm. and was covered by a thin, tense, fibrous capsule. On section, the substance was purplish red, extremely soft, the follicular markings poorly defined.

On opening the cecum the wall was noted to be slightly thickened, the mucosal surface intensely congested, and mottled with occasional small, flame-shaped hemorrhages. No ulcerations were present and these changes became less marked in the transverse, and were absent, in the descending colon and rectum. Scattered small hemorrhages were present in the retroperitoneal tissue about the cecum. No remarkable changes were present elsewhere in the gastro-enteric tract.

The brain weighed 1330 gm. The leptomeninges were smooth and glistening. The small venules over both cerebral hemispheres were dilated and blood-filled. The cerebral convolutions and sulci were well defined. The blood vessels at the base of the brain were elastic and of normal calibre. On section the small vessels of the gray and white matter of both cerebral and cerebellar hemispheres were considerably congested.

The remaining organs were without noteworthy gross alteration.

HISTOLOGIC EXAMINATION

Kidneys: Sections from several areas of both organs showed essentially the same changes. There was a diffuse degeneration of the tubular epithelium of the nephrons which appeared most prominent in the convoluted portions, though no area was entirely spared. The cells were swollen, granular and of irregular diameter; some contained small vacuoles which stained red with Scharlach R. but these were not doubly refractile under polarized light. Nuclear chromotolysis was prominent. Amorphous debris and finely granular casts filled some of the tubular lumina. In certain fields, portions of the tubular lining epithelium was replaced by narrow epithelial cells with deep staining nuclei, and an occasional mitotic figure was noted among the regenerating cells. The stromal capillaries were greatly dilated and filled with blood. Slight edema separated some of the tubules and rarely a patch of lymphocytes and polymorphonuclear neutrophils infiltrated the stroma. A small portion of the stroma in both cortex and medulla was thickened by loosely arranged collagen fiber bundles. No calcium deposits were present. The glomeruli were uniformly congested and some contained granular debris with a rare red cell in the capsular space. A few showed swelling of the epithelium lining Bowman's capsule. Very rarely a glomerulus was found to be replaced by fibrous connective tissue. With ordinary stains, the great majority showed no intrinsic damage to their slings. Fat stains revealed a few very fine, non-doubly retractile droplets in the epithelium of the glomerular tufts. The blood vessels showed no appreciable changes in cortex on medulla. The pelves and calyces were intact.

Liver: Irregular destruction of liver cells about the central veins was the outstanding lesion. These zones were not uniform in outline and size but were constantly present in all lobules. Some were irregularly round and confined to a small rim about the central vein, others fanned out in a stellate pattern to a mid-zonal space or united with similar lesions in adjacent lobules. For the most part these foci were formed by a loose meshwork of blood-filled capillaries, granular debris, occasional interspersed liver cells containing fat droplets, and clusters of large mononuclear cells laden with fine fat particles. Scattered lymphocytes or other inflammatory cells were seldom seen, and liver cell regeneration was notably lacking. Some central areas, however, presented a felt-work of loosely arranged, thickened collagenous fibers replacing the destroyed liver cells.

Adrenals: Scattered patches of fatty degeneration throughout the fascicular layer of the cortex were noted.

Colon: There was intense congestion of the small blood vessels of all the coats with rather large fresh hemorrhages in the mucosal and submucosal stroma. A few zones of active inflammatory response showed fibrinoid necrosis and dissolution of the mucosal capillaries with hemorrhage and polymorphonuclear cells and fibrin completely replacing the mucosal glands and stroma. Some lymphocytes and large mononuclear cells infiltrated portions of the submucosal and serosal fat tissue.

Heart: Sections through the left ventricle showed irregular acellular areas of fibrous connective tissue replacing groups of muscle fibers. The medium-sized and small arteries showed slight arteriosclerosis. Rarely, an arteriole was surrounded by a cuff of lymphocytes and polymorphonuclear neutrophils. Some fresh hemorrhages were present beneath the left auricular endocardium.

Brain: Sections from the basal ganglia showed extensive fatty degeneration of the ganglion cells of the globus pallidus, many of which have undergone complete dissolution. The glial elements were increased and some showed regressive changes. Many of the small arteries exhibited medial calcification and scattered calcospherites lay free in the brain substance. Marked perivascular edema was found in numerous areas. Scattered ganglion cells in the pons and medulla showed fatty degeneration similar to that noted in the globus pallidus.

Final Pathological Diagnoses: Poisoning due to carbon tetrachloride; marked bilateral diffuse toxic nephrosis; marked central necrosis of the liver with focal fatty degeneration; fatty degeneration of the adrenal cortex; acute hemorrhagic colitis; acute tracheobronchitis with acute and organizing lobular pneumonia; myocardial fibrosis; acute focal myocarditis and subendocardial hemorrhages; medial degeneration of the aorta; subacute epiglottitis; acute splenitis; toxic degenerative changes in globus pallidus, pons and medulla.

The usual anatomic changes observed in tetrachloride poisoning of the acute type are severe central necrosis of the liver, diffuse degenerative changes of the renal epithelium, particularly in the convoluted rubules and Henle's loops, and varying degrees of epithelial destruction in the adrenal cortex. The degree and extent of damage to the organs commonly involved depends somewhat on the mode of contact with the poison. Inhalation of tetrachloride fumes is reputed to cause predominantly renal impairment, while ingestion exerts its maximum toxic effect on the liver. Pre-existing fatty changes in any of the organs enhance the action of the poison. The diffuse damage to the renal epithelium observed here appears to be a primary effect of the absorbed tetrachloride and not secondary to damage in the liver or elsewhere. There is no adequate anatomic basis for the hypertension found clinically four years prior to the present illness.

The changes in the basal ganglia and lower centers of the brain are in keeping with direct action of the poison on the large ganglion cells and appear to be unrelated to uremia.

The hemorrhagic inflammatory changes noted in the colon are of the type often associated with uremia. The localized bleeding points found in the endocardium and the retro-peritoneal tissue probably represented a terminal manifestation rather than the effect of carbon tetrachloride.

CLINICAL DISCUSSION

The clinical diagnosis of chronic glomerular nephritis was first suggested by knowledge of pre-existing hypertension plus the early appearance of a degree of creatinine retention seemingly incompatible with an acute process. The later course of the disease appeared to corroborate this impression, because the final urinary picture was one of adequate output of urine of low specific gravity but of almost complete failure to excrete urea and creatinine and with but a trace of albumin, only occasional cells and no casts. Early observations of the clinical picture suggested an acute glomerular lesion but in view of the urinary findings the consensus of opinion swung to a toxic agent, probably carbon tetrachloride.

The possibility that carbon tetrachloride might be the sole cause of this man's difficulty was considered throughout the course of his illness, but we were inclined to doubt its significance, first because we felt that exposure had been slight, and secondly because we could find no clinical evidence of hepatic disease. We interpreted the relatively low blood urea nitrogen as evidence of absorption of that very diffusable substance by the tissues and not as a sign of failure of the absence of clinical jaundice, the liver could be so damaged as to fail to produce urea. The path- liver to produce urea. We doubted that, in the ological findings corroborate this latter opinion. While it is known that carbon tetrachloride may produce a fatal renal lesion without clinical evidence of liver disease, this condition is uncommon and in such a case the exposure to carbon tetrachloride is usually severe. Mild respiratory exposure to carbon tetrachloride results in headache, malaise, nausea, vomiting and mental confusion, and is followed by rapid recovery. Exposure of sufficient severity to produce serious hepatic and renal lesions is usually associated at the outside with deep anesthesia similar to that seen in chloroform poisoning. Chemically and pharmacodynamically the two agents have much in common.

At no time during the course of the disease were we able to explain the unusually low plasma chlorides. As a terminal symptom, they are not inconsistent with the presence of bronchopneumonia, but they were at a very low level prior to the onset of pneumonia. The patient's fluid intake was carefully guarded during the stage of oliguria to prevent his drowning in his own fluid. Nevertheless, pulmonary edema and heart failure developed. We thought these complications were manifestations of nephritis and not of carbon tetrachloride poisoning.

This unusual case seems to show quite clearly that in a susceptible individual a fatal renal process may follow only moderate exposure to carbon tetrachloride and the hepatic disease may not be of sufficient severity to produce recognizable clinical symptoms. It emphasizes the fact that all too frequently we tend to minimize the significance of a history of occupational exposure, and frequently we are guilty of ignorance as regards the toxicology of common organic substances.

Death Takes a Holiday

CHARLES W. PAVEY, M.D.

THAT truth is stranger than fiction is axiomatic and the amazing details of the story I am about to recount present a chain of coincidental circumstances that would appear fanciful to the point of being ridiculous if they were not the absolute verifiable truth. Since all of the characters are still alive, fictitious names and dates will be used.

On January 5, 1930, Edith Prescott was admitted at midnight to the Maternity Service at University Hospital. She had been many hours in labor in her home, a poverty stricken cabin in southern Ohio, without so much as getting engagement. Circumstances dictated that a cesarean be done and this was performed. During the operation the patient went into a profound shock and appeared in imminent danger of taking precipitate departure from this vale of unhappiness. She was accordingly closed hastily and returned to her room for such shock treatment as was available at that time. Her convalescence was stormy.

Profound sepsis developed with daily high spiking temperatures and it was agreed a blood transfusion gave her her only possible chance for recovery. Thereupon, followed a frantic search for suitable donors and though numerous candidates of the same type were cross-matched, only incompatible donors were found. It was at this point that the hand of Fate first became clearly manifest, tapping Edith on the shoulder to signify she had been singled out for special consideration. A robust visitor to another patient in the ward chanced to hear of the difficulty and volunteered to be cross-matched. He was, of course, the long sought answer to our problem, and with the aid of numerous transfusions, our patient was soon restored to health. She was informed of the danger of future pregnancies and the absolute necessity of cesarean should she again become pregnant, which seemed highly doubtful. But as has already been pointed out, Fate had put an unmistakable finger on this patient and six months later her employer, who happened to be a physician, informed us she was again expecting. At our request he instructed her emphatically on the absolute necessity of coming to the hospital three weeks before her due date for observation and operation. Her family doctor, however, felt otherwise and informed her confidently that he could deliver her safely at home.

Plans were accordingly made to deliver the patient in her own little log cabin. Then came a day about a month in advance of the date the baby was expected, when she and her husband went for a ride over the rough Hocking County roads in a Model-T Ford. After one particularly severe road-jolt, the patient experienced a sudden sharp severe pain in her abdomen, the persistence of which caused them to return home.

The Author

● Dr. Pavey, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1928; member of staff University, White Cross, and Mt. Carmel Hospitals; assistant professor of obstetrics, Ohio State University, College of Medicine.

A few hours later she began having regular contractions, and the family doctor was called. He visited her at her cabin and informed her that everything was progressing satisfactorily and that she would deliver in a relatively short time, and that he would return to his home, with the instructions that they were to call him whenever her pains became closer together or when she began to get any bloody show, and he further informed them that if he did not hear from them he would visit her again after a period of a few hours.

The patient continued having pains, suffering rather acutely, without any analgesia and several hours later the family doctor returned to examine her. At this time, he reported that she was making satisfactory progress and he again left the case with the instructions that they were to call him if the delivery became imminent and if they did not call, he would return sometime later to further examine the patient.

By this time, the suffering of the expectant mother had aroused considerable anxiety on the part of her husband and he questioned the doctor closely about the absolute certainty of her delivering safely at home. He was assured that everything would be perfectly all right, and the doctor again left.

Under the anxious eye of her husband the patient grew steadily worse, her color became paler, her anxiety increased and her pains seemed unbearable. Her husband became more distressed by the moment and finally he called the doctor, reporting the circumstances. The doctor assured him that everything would be all right and that he would see the patient sometime

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Note—One of a series of medical literary essays written at the request of the Editor.

later. This failed to satisfy the husband, who by this time had become almost frantic. In desperation then he summoned an ambulance, loaded his wife in it and instructed them to return her to University Hospital in Columbus.

Here again we see the fine hand of Fate. The roads were snowy and covered with ice, and as the ambulance hastened to Columbus on its urgent errand, it struck a patch of ice in the road and skidded into the ditch on a lonely section of road through a state forest where help could only be secured after a period of several hours. There in the darkness the ambulance was finally pulled out of the ditch and speeded on its way, arriving at the hospital ultimately, about one o'clock in the morning.

By this time the patient was in obvious shock, her skin was the color of milk, her temperature had fallen and her blood pressure was quite low, her pulse was almost imperceptible and she was covered with a cold sweat. A diagnosis of ruptured uterus was agreed upon after some argument and it was decided that she should be operated immediately. Such anti-shock measures as were available were instituted immediately preoperatively, and while it was agreed that operation would probably result in the patient's death, it was felt quite certain that it offered her the only slim chance of survival. The great desirability of a blood transfusion was of course recognized and all available donors were immediately cross-matched, but none was found compatible.

Inasmuch as there was evidence of continuing hemorrhage, there remained no alternative except immediate operation. The patient was anesthetized lightly for she was already comotose and the abdomen was opened. Immediately on opening the abdominal wall the fetus became completely visible through the peritoneum. When the peritoneum was opened, a full term, well-developed stillborn fetus was removed. The placenta was floating free in the abdominal cavity and was removed with the fetus, but the uterus was conspicuously missing.

After the fetus, the placenta, and a bucket of free blood had been removed from the abdominal cavity it was possible to locate the uterus contracted down to the size of a man's fist and in normal position. Examination showed that the uterus was split open, the fetus and placenta had been completely extruded into the abdominal cavity and the uterus had retracted down beyond the normal range of post partum retraction. The patient's condition was naturally extremely critical, so a few hasty sutures were put in to control hemorrhage and the abdominal wound was closed. The patient was returned to her room. At first she rallied very slightly.

Despite the fact that it was about three o'clock in the morning by this time, word had gone out by the way of the hospital grapevine that there was something interesting in OB, with the result that all of the internes on duty, practically all of the nurses circulating through the hosptal, and a large number of medical students were present to witness this unusual condition.

All of this, of course, antedated blood banks and stored plasma, and although numerous volunteer donors were tried, none were found that were compatible. It was while lamenting this fact that the writer explained to a group of assembled internes and students that a blood transfusion would probably be the only thing that would save the woman's life, at the same time explaining that from all indications there would be no blood available. In this connection the students were told about the patient's previous experience, when a visitor to another patient volunteered to give his blood. It was pointed out to them also that it might be expected under such circumstances when a stranger had gallantly and cheerfully performed such a generous good deed, the recipient of his generosity, was not even sufficiently interested to have made a mental or a written note of his name and address. Neither the husband nor the wife had the remotest idea of the identity of the man who had saved her life on this previous occasion.

At this juncture, one of the visiting internes, not the interne on the Obstetrical service, but another who had come up to witness the excitement, remarked that there had been a patient visiting an old man on another floor a few days previously who had recited an experience somewhat similar to this, stating that he had given blood to a patient under such circumstances.

The effect of this remark was electric. Could it be that we had miraculously come upon the means of establishing the identity of the man who had previously supplied a considerable amount of blood for this patient whose life again hung by such a delicate thread? Could he recall who the patient was that the visitor had been calling on? Was the patient still in the hospital? Here was an opportunity to perhaps find the man we needed. He thought he could recall who the patient had been and he thought possibly he still was in the hospital and a quick investigation proved such to be the case. The old man with an amputation was aroused from his sleep. Did he recall the visitor who had recounted his unusual experience to the interne? He did. He even supplied us the man's name and told us about where he lived, but he could not give us the exact address and alas, he had no phone and lived many miles away.

The city police department was called and our problem was explained to the radio operator who politely informed us that that was outside the city limits, and even though it was only a short way outside the limits and even though it was a matter of life and death there was nothing he could do. He did suggest, however, that we might call the sheriff's office. The sheriff's office was called but there was no deputy available, no one that they could send out on such an errand. In desperation we called the telephone office and explained our plight to the chief operator. From her we got a more sympathetic reception, she promptly gave us the number of the nearest phone which was about a half a mile from the man we wanted. The phone subscriber was called out of his bed and our predicament explained to him. He knew the man we wanted and offered to call him immediately. He was told not to bother about having our donor call but simply send him forthwith to the hospital. In less than half an hour he was there, big, bluff, generous, he didn't even feel like a hero, but if he had been an angel he couldn't have looked any better to us when he walked in that night. With the blood she got that night and the blood she got on following days from the same donor, Edith began to improve and ultimately she recovered entirely. The chances are that right today she still doesn't know his name. But we know his name, and his name is written on Edith's chart in the hospital records.

No one can say what plans Fate holds for Edith, but one thing seems certain, the wily Goddess is certainly saving her for some purpose. Like a cat playing with a mouse, she first allowed the family doctor to talk her into remaining home to have her baby, then she sent her out on the rough country roads to have her uterus rupture, then she allowed her to labor and labor coming minute by minute closer to death, only to relent enough to give her husband an inkling that all was not well. For a while it looked like Fate had had a change of heart when she put Edith in the ambulance and started her to Columbus, but then the ambulance slipped off the road, and in a lonely place where help was hard to find, but Fate did allow her to be delivered to the hospital still alive. She did allow her to be operated on while there was still some faint glimmer of hope only to bring us up sharp by depriving us of any vestige of a donor when a donor had to be had.

Plainly, Fate has plans for this girl. Suppose her husband hadn't sent her to the hospital. Suppose that it had taken a little longer to get the ambulance out of the ditch, she would have been dead when she arrived. Suppose she hadn't been operated on immediately, she would most surely have died and promptly. Suppose the old man hadn't been in the hospital with an amputation, or suppose he hadn't had a visitor, or suppose that the visitor hadn't happened to tell the interne about his unique experience. Then suppose the interne hadn't come up to see this unusual case, or suppose he hadn't heard the explanation about her previous experience with the transfusion. Or suppose the old man had died, or gone home, or couldn't remember who his visitor was or didn't know his name or where he lived, or suppose there had been no telephone available, supposing the donor couldn't be found, suppose he had been unwilling to give his blood again under the circumstances, or suppose he had been sick and was unable to make such a sacrifice. It is asking too much to expect us to believe that this was all purely a matter of happen-stance, the fine guiding hand of Fate is all too discernible throughout this history.

Epilogue: About a year later Edith came back to see us again. Yes, that's right, pregnant once more. But this time we were determined not to have a repetition of her previous drama. We insisted that she come to Columbus at the beginning of her seventh month where she remained under continuous observation until she was well past the viable time whereupon she was cesareanized of a live child and made an uneventful convalescence. But don't ever think for a minute that we weren't prepared to put in a call for John Q. Donor on an instant's notice.

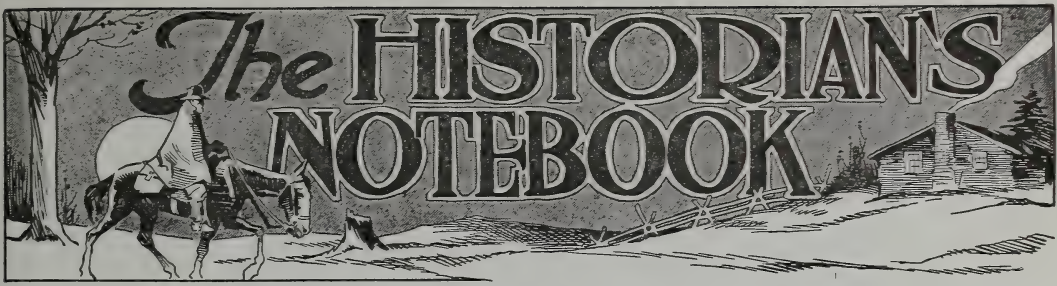
The Climateric

Obviously, there are particular dangers and risks peculiar to the epoch of the climax and obviously, too, they are either preponderantly somatic or preponderantly psychic.

The flexibility and endurance of young tissues no longer exist, and the pelvis, the heart and circulatory apparatus, and the metabolic chemistry all become increasingly vulnerable.

The armor of the psyche begins to wear a bit thin. If there is a considerable flaw in the resistance of the personality, it may mean a dangerous exposure. There is the encroachment of the many liabilities, intrinsic and extrinsic, of the climacteric. The period of regression has begun. Life cannot be lived over. Gone forever is the resiliency of youth. The mistakes of the past must stand. It is not at all remarkable that a usual accompaniment of the menopause is a certain amount of anxiety, apprehension, and indecision.

All in all, the climacteric, not only for women but also for men, is an epoch of insecurity. It carries with it a triple threat; somatic, notably cardiovascular, pelvic, chemicoendocrinal-metabolic; environmental, such as the increasing likelihood of failure to attain success in life, financial reverses, disappointments, family worries, the increasing toll of relatives and friends taken by death, etc.; the inner psychic turmoil and perhaps disaster wrought in a vulnerable personality.—Edward A. Strecker, M.D., Philadelphia; N.Y.S. Jour. of Med., Vol. 42, No. 6, March 15, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

John Stoddard Butterfield

First Dean of Starling Medical College

JONATHAN FORMAN, B.A., M.D.

ALL too little emphasis even here in his own school has been placed upon the life and works of John Stoddard Butterfield, the last Dean of the Medical Department of the Willoughby University of Lake Erie, the only Dean of the Willoughby Medical College of Columbus, and the first Dean of the Starling Medical College. To call to the attention of the present generation the great influence that this teacher-physician had on medical education and medical organization, in the few years that were allowed him, is the purpose of writing this brief biography of the man who crowded so many achievements into 32 brief years.

The Author

● **Dr. Forman, Columbus, Ohio, is Chairman of the Committee on Medical History and Archives, Ohio State Archeological and Historical Society; Editor, Ohio State Medical Journal.**

Dr. Butterfield was born in Stoddard, Cheshire County, New Hampshire, on December 2, 1817. As a small boy he attended the local school. Later he studied under Elisha Huntington in Lowell, Massachusetts. It is usually stated that he took one course of lectures in the Berkshire Medical Institute of Pittsfield, Massachusetts. There is some doubt about this. Dr. Frederick Waite, who checked this for us, reports as follows:

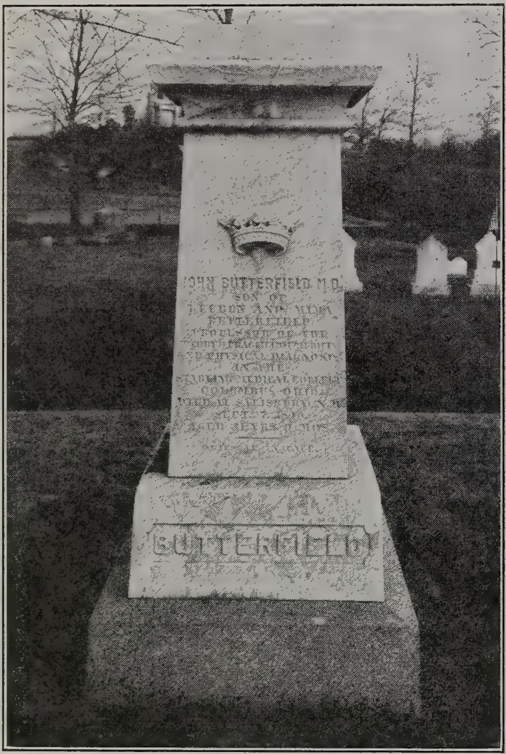
> "I am unable to verify this because I lack the catalogue for 1839-40 when he would have probably been at Berkshire. I do not think he ever attended an arts college. He did not attend Dartmouth, University of Vermont, Williams or Amherst, which would have been the most likely place for him to go. His degree from Berkshire might have been honorary. In the catalogue of all Berkshire graduates printed in 1862, John Butterfield is put down with the class of 1844, with no indication of his being an honorary degree. This catalogue, however, is full of errors. The catalogue of 1845, which lists the graduates of 1844, does not contain his name at all."

There is some evidence based upon the degrees of Quackenbush, Paddock, McCook and Trowbridge, and later Brown were among eleven men who were given honorary degrees. The '45 catalogue lists eight honorary degrees in '44. In the catalogue for 1853 there is given a tabulation which says according to White, "Honorary degrees in 1844, eleven". This has been interpreted to mean that the degrees to Butterfield, Paddock and Trowbridge were afterthoughts, given after the catalogue had been printed. This, of course, leads to the interpretation that Dr. Childs gave names personally either to secure a faculty for Willoughby or to back up Berkshire. There is no doubt that he is graduated from the College of Physicians and Surgeons of New York City in 1841 at the age of 23.

According to his obituary, in the *Transactions of the Ohio State Medical Society* (1851, p. 61), "The early maturity of his character is shown by the fact that at the age of 15 he taught a large district school to the satisfaction of his employers.

"His parents afterwards removed to Lowell, Massachusetts, where he was soon appointed principal of one of the grammar schools of that city. In this capacity he continued for a number of years, and became one of the leading young men of the city by his active interest in the various enterprises of the day, and by his ability as a fluent and impressive speaker.

"He commenced the study of medicine under the direction of Dr. Elisha Huntington, an eminent physician of Lowell, and pursued it with a zeal and energy seldom equalled by any student. He attended one course of lectures at the Berkshire Medical Institute, Massachusetts, and graduated at the College of Physicians and Surgeons, New York, in March, 1841. After practicing a short time in Littleton, Massachusetts, he returned to Lowell and formed a partnership with his old tutor, Dr. Huntington, whose extensive practice afforded an excellent opportunity for the study of disease. This was not neglected by the young and ardent devotee".



JOHN STODDARD BUTTERFIELD
Born Dec. 2, 1817; Died Sept. 7, 1849

The close of his second year in private practice found the medical department of the Willoughby University of Lake Erie was threatened with extinction because of the resignation of Delamater, Kirkland and other prominent members, who had united in the organization of the Cleveland Medical College. The authorities of the University selected a committee to visit the medical centers in the East to find a young medical teacher who would be able to overcome these obstacles and by his leadership bring back the glory that formerly was the school's. Dr. Willard Parker recommended John Stoddard Butterfield of Lowell, Massachusetts, to this committee as the man for whom they were looking. So he was invited to accept the chair of theory and practice of medicine, in the Willoughby University of Lake Erie and promptly accepted.

In the late forties there were several administrative problems before the faculties of the three regular medical schools in Ohio. In addition to those produced by internal strife, there were those of competition for students. Jeuttner intimates that these bore most heavily upon the Ohio Medical College in Cincinnati. The Cleveland Medical College had an annual enrollment of around 250 students, and what was worse had agreed to accept promissory notes*, thus encouraging a questionable credit system. The Starling Medical College had received the largest gift which up to that time had ever been given by a single individual to any Ohio Institution and it also had an enrollment of 150 students in round numbers. Dr. Butterfield entered boldly into the war on cheap medical education as his friends in Cincinnati called it. Let me quote his first editrial:†

"We know that in this great empire of Ohio there is room and verge enough for us, and we also know that, if we succeed according to our wishes, we shall do far more good than harm. A brighter day is dawning upon our beloved profession. Everywhere is the upward movement seen. Physicians who could be content to live and practice year after year without reading, with little reflection and less remorse, are fast dying out or being pushed out by younger and better educated men or waking up and bestirring themselves in a most commendable way.

"The condition of a portion of the profession in Ohio, has been and shall be to some extent a disgrace to us. A very considerable proportion of the practicioners of medicine in our state, have never received a regular medical education or obtained a degree. Some of them (and the practice is still to some extent carried on) entered a physician's office, and after studying for a few months to two or three years, perhaps Bell's Anatomy and Thomas' or Eberle's Practice, more or less, started out with a certificate from their preceptor in their pockets, hoisted their "shingle" in some backwoods settlement, and were, thenceforth, passed all redemption or recall dubbed **Doctors.**

"In the name of our profession, in the name of humanity, we protest against this indiscriminate, wholesale manufacture of doctors in a retail way! I said we are improving—so we are, but there is present cause for the above remarks. Within the last year we have known several instances of medical students commencing practice either before attending lectures or after a single course. This has always been the way with us and we cannot check it at once; but the whole moral force of the profession ought to be brought to bear against it. The time must soon come, when no young man starting in professional life in this way can be recognized as a regular physician.

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*While the good Dean was incensed in public by this practice of accepting notes for tuition, he nevertheless was a practical man. I have gone over the cash book of the Willoughby Medical College of Columbus for the year 1847-48; there were 107 cash accounts with the students; there were 20 notes paid in full during the year; there were four notes that had been met partially and none that were completely outstanding. At the end of the year this gave the faculty a total income of $6,363.00. for which they had received $5,298.64 by the 21st day of February, 1848. There were certain expenditures for supplies amounting to $91.00. At the last faculty meeting of the year, then, they had for their consideration the sum of $5,107.64. Each chair was therefore entitled to two-thirteenths, which amounted to $785.79, after Professor S. M. Smith had been paid $392.89.

(†years ahead of its time. It was building its own hospital, for instruction and the care of the sick poor.)

"The time has been when necessity could be pleaded in extenuation but that has past. If a young man commencing study at the present day, with our largely increased facilities for imparting instruction and the readiness and cheapness with which they are attainable, cannot obtain a tolerable medical education before commencing practice, he cannot possess sufficient energy and perseverance to succeed in any profession, and it would be far better for himself and the community, that he turned his lazy ambition into some other channel.

"We feel strongly on this subject and we know we have the sympathy of the best minds in the profession in all parts of the state. That we may not be misunderstood we wish distinctly to say that we know many excellent physicians who are an honor to the profession, who are entirely self educated, but these will most willingly assent to the justice of the above remarks. None are more deeply sensible than themselves of the disadvantages under which they labor. At the close of the first session of the Starling Medical College in this city, the degree of M.D. was conferred upon 32 gentlemen, more than half of whom had been practicioners of medicine from four to twenty years and we presume the proportion of the same was very considerable if not as great in the other Ohio schools. This is strong evidence of a desire for better things."

A large part of his short life of 32 years was spent in teaching. He was at one time a pupil of our venerable citizen, Mr. Joshua Merrill, and also of Mr. Thomas M. Clark, now Bishop Clark of Rhode Island. Dr. Butterfield taught school at Francestown, New Hampshire, when he was but 17 years of age, having previously had some experience in teaching at Londonderry in that state. He was at one time the principal of the Third Grammar School in this city.

To quote again from the biography prepared by his intimate friend, Dr. Brown of Lowell, who describes him as he came to Willoughby to accept the chair of medicine as:

"He was young in years, and young in his profession. He had practiced only two years, but his pupilage had extended through four or five years. He was ambitious and studious, and from the moment of his appointment, he determined to spare no exertion to become an acceptable and useful teacher. He labored with great industry, and his large classes will bear ample and willing testimony to his zeal and fidelity."

In 1846, the Medical Department of the Willoughby University was removed to the city of Columbus. Dr. Butterfield was the chief instrument in effecting this change, and the propriety and wisdom of such change cannot now be doubted. New buildings were now required, and after being instrumental in obtaining the munificent donation therefor, of the late Lyne Starling, Esq., he aided and counciled in planning and commencing the erection of a college edifice, which, when completed will be a noble monument of its noble projector.

In September, 1848, he commenced editing the Ohio Medical and Surgical Journal, a new work, the publication of which was begun at his suggestion, and for a year he labored, as his other duties and his failing health allowed, to establish a profitable and popular Journal of Medicine. Its success was almost unparalleled in the history of medical periodicals, and afforded great gratification to its editor. It received the warm commendation of some of the most distinguished medical men in the country, but it was not a fair sample of what he would have made it had his health been good. Every number was prepared under the influence of depressing illness and anxiety.

Some time before his death, Dr. Butterfield commenced the preparation of a work on Physical Diagnosis. His design was to make a practical manual for students and young practitioners. He had thoroughly studied his subject, and was a skillful auscultator. This work would have added much to his fame, but unfortunately was left unfinished.

In April, 1847, Dr. Butterfield had a slight haemotysis. This was the first intimation of the fatal disease which preyed upon him for more than two years and at length terminated his life. He contended with a resolute heart against disease, but with anxieties and doubts, hopes and fears. There was no unmanly yielding, but a resolute determination to live as long as possible, and to make the best application of his powers while life lasted. At length, however, he sank quietly to rest. The brilliant intellect passed away, and the manly form was laid in the grave. His last resting place is one of the most beautiful spots in the cemetery at Lowell, Massachusetts.

An examination revealed extensive tubercular disease of the lungs and of the mesenteric glands. He was a communicant of the Episcopal church, and died in the full faith of the gospel. He left no family except the gentle and lovely sharer of his high hopes, in years of promise, and the kind soother of his sufferings and cares, when those hopes were withering away.

"Dr. Butterfield was one of the originators of our Society—was one of that little knot who, in 1846, formed its nucleus in a side parlor of the Neil House, and he endeavored to build it up, enriched by some of his own ennobling traits of character—high honor, great purity and strict integrity. Would that our Society might become all that his enthusiastic and lofty nature aimed to make it.

"It would afford pleasure and profit, would time permit, to dwell upon the character of Dr. Butterfield as a man, and as a teacher. As a teacher he was destined, had years been meted out to him, to stand in the very front rank of the profession. His fluency of speech and purity of language, his musical voice and earnestness of tone made it a pleasure for all to listen, independent of the interest resulting from his clearness of thought, his abundance of facts, and able deductions. His classes were always unanimous in a high appreciation of his talents as a public lecturer. His colleagues will consider it no disparagement to them to say, that they considered and felt him to be the very soul and spirit of the schools with which he was connected.

"As a writer, he was sprightly and agreeable, as well as logical and soundly instructive. As a correspondent, he had few equals. His letters were replete with brilliancy of wit, a liveliness of imagination, a warmth of heart and depth of feeling.

"As a man, it is no empty eulogism to say that all loved him—that he was all that was ennobling to human nature—eminently social and brilliant in conversation—generous and sympathizing. Alas, that he should have died so soon!"

Dr. Brown said that Dean Butterfield was a great favorite of Dr. Willard Parker and when Parker heard of his death he said, "He lived a full and rounded life in the short period of 32 years." Dr. Butterfield had had a representative part for Ohio in the formation of the American Medical Association. It's no wonder, then, that the Editor of its Transactions should note his death with the statement: "As a lecturer and teacher, Dr. Butterfield had but few equals; his talents were of a superior order. As an editor he was particularly adapted to his calling and we fear it will be difficult to find for his successor one possessed of the same rare combination of talents." But to us Butterfield will always live as the Dean who said: "Let us not begin with what is impracticable and we shall not end with what is ridiculous."

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Dr. Willard C. Rappleye, Commissioner of Hospitals, New York City, recently announced that it probably would be necessary in the near future to substitute trained attendants for interns on the ambulances of both the voluntary and municipal hospitals in New York, due to the increasing shortage of interns.

Coming Meetings

American Medical Association, Atlantic City, June 8-12.

American Association for the Study of Allergy, Atlantic City, June 8-9.

American Association for the Surgery of Trauma, Boston, June 4-6.

American Broncho - Esophagological Association, Atlantic City, June 8-9.

American College of Chest Physicians, Atlantic City, June 6-8.

American Diabetes Association, Atlantic City, June 7.

American Gastro - Enterological Association, Atlantic City, June 8-9.

American Gynecological Society, Skytop, Pa., June 15-17.

American Heart Association, Atlantic City, June 5-6.

American Human Serum Association, Atlantic City, June 8.

American Laryngological, Rhinological and Otological Society, Atlantic City, June 1-3.

American Medical Women's Association, Atlantic City, June 6-7.

American Neurological Association, Chicago, June 4-6.

American Ophthalmological Society, Hot Springs, Va., June 1-3.

American Orthopedic Association, Baltimore, June 3-6.

American Proctologic Society, Atlantic City, June 7.

American Society of Clinical Pathologists, Philadelphia, June 5-7.

American Radium Society, Atlantic City, June 8-9.

American Therapeutic Society, Atlantic City, June 4-6.

American Urological Association, New York, June 1-4.

Association for the Study of Internal Secretions, Atlantic City, June 8-9.

Buckeye State Medical, Dental and Pharmaceutical Association, Columbus, June 25-26.

International College of Surgeons, U. S. Chapter, Denver, July 15-18.

National Gastroenterological Association, New York, June 3-5.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

PROMIN IN THE TREATMENT OF TUBERCULOSIS

In 1938, Sulfanilamide was reported to have an inhibitory effect on the development of experimental tuberculosis in guinea pigs but subsequent papers held out scant hope that this agent would prove to be a specific remedy for tuberculosis in human beings.

Promin in its solid form varies from white to light yellow and is slightly hygroscopic. It is highly soluble in water and 40 per cent solutions are stable indefinitely and may be sterilized by heat. It is slightly bitter but small amounts may be mixed with the food of animals without impairing their appetite or digestion. Guinea pigs tolerate 1 per cent promin in their foods and will consume from 300 to 400 mg. of the drug per 24 hours. Increasing the concentration of promin to 2 per cent, causes anorexia which interferes with the quantity of food taken.

In the first experiment, promin to the amount of 1 per cent was added to the feed of 30 guinea pigs while 20 others received the same diet but without promin. Two days after the feeding experiment began, all guinea pigs (50) were inoculated subcutaneously with human tubercle bacilli of known strain. On the 84th day all the animals in the control group had died and 24 of the animals which had received promin were living. Promin was then removed from the diet of 12 of the survivors. After 82 days more, 13 animals still lived, five of which had received promin for the entire period (166 days) and the other eight for the first period of 84 days only. The purpose of this procedure was to determine if latent tuberculosis would become reactivated when treatment was discontinued.

The value of a chemotherapeutic agent must be appraised not only on survival time, but also on the character of the disease process. With one exception the degree of tuberculous involvement in the animals that received promin was notably less than in the controls.

Although the results indicated that in many of the animals promin either had prevented the establishment of lesions or had caused their eventual disappearance, another effect of the drug which is perhaps of more importance was that which it exerted on the cellular elements of the lesions. In the vast majority of the animals in the treated group that had lesions, the histopathological characteristics of the disease process apparently were modified favorably. This was especially true of the lesions in the parenchymal tissues. The lesions were usually small and discrete and the epithelioid phase of the reactive process predominated. Necrosis was infrequent and a tendency of the process toward fibrosis was observed frequently. These features of the morbid process were in marked contrast to those that characterized the disease in the control group of animals. In the latter the disease was extensive, destructive and progressive.

The objectives of the second experiment were: (1) to confirm results of the first and (2) to determine what effect, if any, promin might have on a tuberculous infection introduced at the same time as or at varying periods before treatment with promin was begun.

Eighty guinea pigs were selected and divided into 8 groups. Group one consisted of 12 animals infected but not treated (controls). Group 8 consisted of 20 animals whose treatment began two days prior to infection. Groups 2 to 7 each contained 8 animals and treatment was begun, in relation to the day of infection, at various intervals as follows:

Group 2—day of infection
Group 3—3 days after
Group 4—one week after
Group 5—2 weeks after
Group 6—4 weeks after
Group 7—6 weeks after

All animals (one exception) reacted to tuberculin. Generally speaking, the reactions of the animals that received promin were less severe than those of the untreated animals.

The difference in survival times of the several groups was striking. When the last of the untreated animals died, 189 days after inoculation, 84 per cent of the treated animals were still living. Of the treated animals that died, none had sufficient tuberculosis to account for death, and this percentage of deaths might reasonably be considered an average or normal mortality rate for guinea pigs.

Examination of the tissues and organs of the animals showed that all untreated animals were tuberculous, that in 57 per cent of the treated animals no evidence of infection in the visceral organs was found, that in the remainder of those treated tuberculosis was found (with a few exceptions) of minimal severity and that 43 per cent of the treated animals failed to show evidence of disseminated tuberculosis. — Wm. H. Feldman, M.D., H. Corwin Hinshaw, M.D., and Harold E. Moses, M.D., Amer. Rev. of Tuber., March, 1942.

The President-Elect

DR. C. C. SHERBURNE, unanimous choice of the House of Delegates for the office of President-Elect of the Ohio State Medical Association, will ascend to the leadership of medical organization in Ohio as the climax of a long and devoted career of service to his profession. A resident of Columbus, he was elected to his new office at the recent 96th Annual Meeting of the State Association in Columbus. Dr. Sherburne will assume the presidency of the Association in 1943 upon completion of the term of Dr. Edward J. McCormick, Toledo. As President-Elect he will continue as a member of The Council.

A native of Greenville, Illinois, Clifford Clare Sherburne will be 48 years old on August 25. He spent virtually all of his boyhood in Newark, Ohio, having moved there with his family at the age of two. His pre-medical education was obtained at Denison University, Granville, where he distinguished himself in his studies and as a member of the University basketball team. He was graduated from Denison with the degree of bachelor of arts in 1917.

Dr. Sherburne received his medical education at Washington University School of Medicine, St. Louis, where he was graduated in 1921. He spent the next year as intern at Barnes Hospital, St. Louis, and remained there an additional year as assistant resident physician in medicine. In 1923 he was named Director of the National Pathological Laboratory, Flint, Michigan. At the present time he is on the clinical teaching staff of the Ohio State University College of Medicine.

Returning to Ohio in 1924, Dr. Sherburne began his practice in Columbus, and he has remained there since. He is at present specializing in internal medicine and is on the staffs of Mt. Carmel, St. Francis, and Grant Hospitals, Columbus.

The new President-Elect has been generous with his time and ability to the benefit of both local and state medical organizations. He is the immediate Past President of the Columbus Academy of Medicine. Since 1935 he has served continuously on The Council of the Ohio State Medical Association, representing the Tenth District. Dr. Sherburne has also served the State Association in other ways. In 1936 he was appointed to the Committee on Scientific Work for a three-year term, and he served as chairman of that committee in 1938. Since 1939 he has served as chairman of the Committee on Auditing and Appropriations.

Civic affairs, too, have claimed the unselfish attention of Dr. Sherburne. He is currently serving as Chief of Emergency Medical Service for the Franklin County Defense Council, and he is a director of the Franklin County Red Cross and head of its disaster relief medical organization. In these capacities he has without hesitation devoted himself to the task of working out the details for organizing catastrophe medical services for one of Ohio's largest cities.

Dr. Sherburne is a member of Sigma Chi fraternity and has been active in alumni affairs of the chapter at Denison. He is also a member of Nu Sigma Nu professional fraternity. He belongs to the Masonic order, being affiliated with Center Star Lodge, No. 11, Granville. Both he and Mrs. Sherburne are members of St. Paul's Episcopal church, Columbus. His hobby is antiques, and he is known among fellow hobbyists as an authority on early American silver and glassware.

When the new President-Elect takes over the highest office in the Association next year, he will bring to it a highly desirable combination of experience and ability as a leader in his profession. His sincerity, his pleasing personality, and his ready wit and humor will make Ohio physicians proud of the man on whom they have bestowed their highest honor.

Board To Speed Up Commissioning of Medical Officers At Work in Ohio; New Policy of Selective Service Regarding Physicians; All Doctors Urged To Sign Procurement and Assignment Forms Promptly

NEW developments in the military situation, involving the dispatch of American troops into new theaters of battle, have emphasized the acute need of the Army, especially, for additional medical officers. The immediate need of the Army is for approximately 5,000 additional medical officers, exclusive of the Air Corps which has issued a call for 2,500 new medical officers, on or before July 1. As pointed out in the May issue of *The Journal* the total computed requirement of the Army for the calendar year 1942 is approximately 16,000 additional medical officers.

In this article four important phases or developments of the immediate war situation as it affects the medical profession will be discussed, namely:

1. Why each physician should fill out as soon as possible one of the new Procurement and Assignment Forms and the Questionnaire which accompanied each form;

2. The steps which have been taken to speed up the commissioning of medical officers through the establishment of Medical Officer Recruiting Boards;

3. New Selective Service orders relaxing the consideration to be given to claims by physicians for deferment because of dependents;

4. How hospitals and medical schools must readjust their operations to meet problems of increasing gravity as more and more physicians enter military service.

PROCUREMENT AND ASSIGNMENT BLANKS

Why each physician should fill out and mail to Washington one of the new Procurement and Assignment Forms and Questionnaire was emphasized in an article published on pages 471-473 of the May issue of *The Journal.* Following are abstracts of some of the important reasons set forth in that article: (1) By enrolling a physician will be indicating his willingness to cooperate in some capacity in the winning of the War; (2) This is an opportunity for older physicians—those who cannot qualify for the Army and Navy because of age but who are anxious to do their part—to make their contribution by enrolling for services with some other governmental agency requiring medical personnel or to express a willingness to take an essential assignment in civilian or industrial practice; (3) Each physician who enrolls will be able to present important facts about himself (his work and practice) and to indicate where and how he believes his services and talents can be used to the best advantage; (4) He will assist in bringing up to date facts about himself which will be used in assigning him should he enter military or governmental services; (5) A physician under 45 years of age will be protecting himself against unreasonable and hasty action by his Selective Service Board; (6) He will be assisting in this **voluntary** and orderly effort to bring about an equitable distribution of medical manpower between the civilian population and the armed forces.

SPECIAL BULLETIN

Following is an important excerpt from a recent bulletin issued by the Committee on Medical Preparedness of the Ohio State Medical Association (also serving as the Ohio Procurement and Assignment Committee for Physicians) to all local medical preparedness chairmen which reveals in a general way why each physician should make out one of the new forms:

"Every Ohio physician should have received a new Procurement and Assignment Form and Questionnaire on or about the last week in April. **Any physician who did not receive these documents** should drop a postal card to the National Roster of Scientific and Specialized Personnel, 916 G Street, N. W., Washington, D. C., asking that the forms be mailed to him.

"It is the hope of the Procurement and Assignment Service that each physician will complete the forms IMMEDIATELY and return them to

Washington in the envelope which accompanied the forms.

"Physicians who are willing to offer their services for active military service should indicate that on the enrollment form. The Army alone will need 16,000 additional medical officers by the end of 1942. Physicians who cannot qualify for military service because of physical conditions or age, or who believe their ability and experience can be of more value to the country if they were to serve in some other capacity, should indicate their preferences on the enrollment form.

The information asked on the questionnaire should be given in full. This data will be used in analyzing the particular qualifications of a physician. It will reveal why he may be essential in a civilian or teaching capacity and it will give the War and Navy Departments an idea as to his assignment and rank, should he enter the armed forces as a medical officer.

"This statement from Lt. Col. Seeley, executive officer of the Procurement and Assignment Service, Washington, is important: 'It should be emphasized that the preferences for service stated on the enrollment form are ENTIRELY VOLUNTARY and that no individual is employed in these agencies until he has been either commissioned in the military services, appointed in the case of the Civil Service agencies, or has made private arrangements with civil agencies.'

"In other words, signing of the enrollment form does not carry with it compulsion in any sense of the word. This is the big distinction between Procurement and Assignment Service and Selective Service.

"Though a physician may feel that because of advanced age, disability or other reason he can be of no service in any way, it is just as important that he sign and return the Procurement and Assignment form stating the facts. This will make it a matter of record that he is not available as an effective medical man in any capacity."

MANY HAVE VOLUNTEERED

As pointed out in the May 16 issue of *The Journal of the American Medical Association:* "Never has there been any question of the patriotism of the medical profession! Any delay that has occurred up to now in enrollment has been associated with the desire of every physician to serve in the capacity for which he is best suited. The various technics that have been developed for making such determination have apparently resulted in some delay by physicians in making themselves available prior to receipt of the enrollment form and questionnaire now in the hands of every physician. Already many thousands of these enrollment forms have been received in the office of the National Roster."

Up to the time this issue went to press the Ohio Procurement and Assignment Committee had passed on blanks signed by approximately 650 Ohio physicians who have indicated a desire for a commission in the Medical Corps of the Army or Navy. This figure is exclusive of the approximately 850 Ohio physicians who have already been commissioned and are on active duty.

MEDICAL OFFICERS RECRUITING BOARD

To eliminate a serious bottleneck in the offices of the Adjutant General and the Surgeon General of the Army at Washington, which has delayed for weeks and even months the commissioning of medical officers, a decentralized program of commissioning medical officers has been put into operation.

A Medical Officer Recruiting Board has been established by the War Department in each state. **The Ohio board consists of Major H. S. Perry, representing the Adjutant General's Office, and Captain Clarence E. Northrup, M. C., representing the Surgeon General's Office.**

This Board, operating under the direct supervision of Colonel E. C. Jones, M. C., Corps Area Surgeon, Fifth Army Corps, Fort Hayes, Columbus, **has orders to get in touch with all the physicians who have enrolled with the Procurement and Assignment Service, indicating a desire for a commission in the Army Medical Corps, and all other Ohio physicians who have not as yet signed a Procurement and Assignment blank but who may want to apply immediately for a commission as a medical officer in the Army.**

POWERS OF BOARD

This Board is authorized (1) to assist all physicians to complete an application for a commission or to expedite a decision on any application which is pending; (2) to arrange for a final type physical examination for any applicant for a commission; to administer the oath of office to those who qualify professionally and physically if they are under 45 years of age and are to be commissioned as first lieutneant or captain; (4) to initiate applications and forward papers with recommendations as to rank to the Surgeon General for physicians 45 to 54 years of age, inclusive, or for physicians under 45 years of age who might qualify for a rank above that of captain.

In order that the Board may pass on a physician's professional qualifications, which are considered in designating his rank, he should have with him at the time of his interview with the Board, the following papers: (1) Medical school diploma; (2) license to practice medicine; (3) evidence of membership in special societies and certificate of specialty board, if any.

MEETINGS SCHEDULED

The Ohio Board has held sessions at Columbus, Dayton, Cincinnati and Zanesville. As a result of these meetings, the applications of many Ohio physicians have been initiated or expedited. Some of the physicians who interviewed the Board at its first meeting have received their commission; others may expect their commission very soon.

The above meetings were scheduled with the assistance of the Committee on Medical Preparedness (Ohio Procurement and Assignment Committee) of the Ohio State Medical Association, local preparedness chairmen and the Headquarters Office staff.

Additional meetings will be held in Cleveland, Mansfield, Akron, Youngstown, Lima, Toledo, Portsmouth and New Philadelphia. The procedure used in notifying physicians about the meetings already held will be used with respect to the meetings to be held during ensuing weeks. A letter from Dr. Robert Conard, chairman of the Ohio Procurement and Assignment Committee, will be mailed to each physician whose Procurement and Assignment Form has been cleared, notifying him of the meeting which will be held in his part of the state. A special bulletin about the meeting will be mailed to the local preparedness chairmen of the district so they can get word of the meeting to all physicians who may be interested in getting a commission, even though some may not have filed a Procurement and Assignment Form.

INTERVIEW IS VOLUNTARY

Appearance before the Medical Officer Recruiting Board is entirely voluntarily on the part of any physician. The purpose of the Board is to interview physicians who are interested in obtaining a commission, to help them with the paper work, and to expedite the issuance of commissions. No physician is under compulsion to meet the Board.

Moreover, the work of the Board and the Ohio Procurement and Assignment Committee will be coordinated. The committee will continue to pass on forms as in the past. Before the Board passes on the application of a physician who has not signed a Procurement and Assignment Form, it must execute a Procurement and Assignment Form for him and clear it through the committee, to determine whether he is an "available" or an "essential" man so far as the medical and health requirements of his community are concerned. Also, it must obtain "professional clearance" on each such physician from the Consultant Office of the Procurement and Assignment Service at the American Medical Association Headquarters, Chicago.

HOW RANK WILL BE DETERMINED

The following basic policy agreed upon jointly by the Adjutant General and the Surgeon General relative to the commissioning of medical officers will govern the Medical Officer Recruiting Boards in deciding what rank shall be given a physician and the procedures to be followed by the Adjutant General in acting on recommendations of the Surgeon General:

"(a) **Basic Considerations.**—(1) Appointments in the Army of the United States (medical department) will be recommended by the Surgeon General to fill authorized position vacancies for which no qualified medical department officers are available. The recommended applicants must possess the special qualifications required for such positions.

"(2) Since no training or experience in civil life is analogous to that afforded by active military duty, no initial appointments will be recommended in grades above the lowest for assignment to tactical units.

"(3) Position vacancies calling for grades above the lowest will, so far as possible, be filled by the promotion of qualified officers on active duty.

"(b) **Policy Governing Grades for Various Sections.**—(1) Medical Corps: **All appointments will be recommended in the grade of first lieutenant with the following exceptions:**

"(a) **Captain:** 1. Eligible applicants between the ages of 37 and 45 will be appointed in the grade of captain by reason of their age and general unclassified medical training and experience.

"2. Below the age of 37 the following recognized training and experience will be considered in recommending initial appointments in the grade of captain: certification by an American specialty board; fellowship, American College of Surgeons or American College of Physicians; membership in other nationally recognized qualifying society or association, or the formal hospital training equivalent to that required by an American specialty board or other recognized training appropriate to the assignment for which recommended.

"3. Eligible applicants who previously held commissions in the grade of captain in the Medical Corps (Regular Army, National Guard of the United States, Officers' Reserve Corps) may be appointed in that grade provided they have not passed the age of 45.

"(b) **Major:** 1. Eligible applicants between the

Where and How To Apply For Commission in the Army

Any Ohio physician who wants to apply for a commission in the Army Medical Corps, or who has an application pending, should write Dr. Robert Conard, chairman, Ohio Procurement and Assignment Committee, in care of the Headquarters Office, Ohio State Medical Association, 1005 Hartman Theater Building, Columbus. Dr. Conard will refer his name to the Ohio Medical Officer Recruiting Board and will see that the physician is informed of the time when the Board will visit the section of the state in which the physician resides.

However, if a physician does not wish to wait until the Board visits his area of the state, he may file an application or obtain information regarding a commission through personal interview with Lt. Col., Arthur Redland, M. C., Fifth Corps Area Headquarters, Fort Hayes, Columbus.

ages of 37 and 55 for whom there exists appropriate position vacancies, who are qualified for appointment as captain as outlined in paragraph (1) (a) 2 and whose additional training and experience justify initial assignment as chief of service or section or executive officer in a large military hospital or other appropriate position, may be appointed in the grade of major.

"2. Applicants previously commissioned as major in the Medical Corps (Regular Army, National Guard of the United States, Officers' Reserve Corps) whose training and experience qualify them for an appropriate assignment may be appointed in the grade of major, provided they have not passed the age of 55.

"(c) **Lieutenant Colonel and Colonel:** 1. In view of the small number of assignment vacancies in the grades of lieutenant colonel and colonel and the large number of reserve officers of these grades who have not been ordered to active duty, such appointments will be limited to specially qualified applicants required for specific position vacancies which cannot be filled by promotion or by the activation of qualified reserve officers.

"Note.—a. There are in the age group 24-45 more than a sufficient number of eligible qualified physicians to meet medical department requirements. It is on this age group that the Congress, through the Selective Service Act, has imposed the definite obligation of military service. Applicants beyond this age will be considered for appointment only if they possess the special qualifications required for assignment to positions appropriate for the grade of major or above.

"b. Appointments for assignment to affiliated medical department units are made under special War Department authorization, and in grades authorized by appropriate tables of organization on recommendation of the authorities of the sponsoring institutions."

Where To Apply for Commission As Navy Medical Officer

Ohio physicians who may be interested in obtaining a commission as a medical officer of the United States Navy or who desire information as to the status of an application which they have filed with the Navy, should get in touch with the Director Naval Officer Procurement, Ninth Naval District, Board of Trade Building, 141 West Jackson Boulevard, Chicago. All applications for appointment will be cleared through the Procurement and Assignment Service by such director before an appointment is made.

The following information should be submitted by an applicant to the Navy Procurement Director: date of birth, medical school from which graduated, and professional attainments since graduation.

GRADUATES OF UNAPPROVED SCHOOLS

The Office of the Surgeon General also has issued the following information:

"Physicians who received their degree as Doctor of Medicine from schools hitherto not approved for appointment in the Medical Corps Reserve may now be considered for appointment in the Medical Corps, Army of the United States." Physicians in this classification may file their applications with the Ohio Medical Officer Recruiting Board which is empowered to initiate such applications and forward them to the Surgeon General who is the final judge of whether or not the applicant shall be recommended to the Adjutant General for a commission.

REGARDING NON-CITIZENS

The Board also is authorized to initiate papers for graduates of foreign medical schools, the final decision resting in Washington. Physicians who are non-citizens are not eligible for appointment to commissioned grades in the Army. However under a special emergency regulation, any non-citizen who enters the Army may obtain full citizenship under ordinary circumstance within 90 days. Therefore, a physician who is not a citizen when entering the Army could take advantage of this special ruling and make himself eligible for a commission within a reasonable time.

Under the decentralized plan of commissioning medical officers, it is hoped to substantially reduce the period from the time an application is filed to the time a physician receives his commission, especially in cases of lieutenants and captains. In all cases a period of 14 days is granted between the administration of the oath of office and the date of reporting for duty. If a physician desires to report for duty before the 14-day period has expired, he may do so by appropriate statement to the Recruiting Board or to the Surgeon General's Office. No steps should be taken by a physician to close his office until after he has taken the oath of office.

SELECTIVE SERVICE AND PHYSICIANS

An important change in policy with respect to members of the medical profession under the age of 45 years, is found in a Memorandum issued under date of April 28, 1942, by General Lewis B. Hershey, director, National Selective Service System, to all stae directors.

The Memorandum read in part as follows:

"Information previously distributed by this headquarters clearly indicates an over-all shortage of medical doctors, dentists and doctors of veterinary medicine in the nation. Since war was declared, the shortage of these professional men has become acute. It is now manifest that every qualified doctor, dentist and veterinarian

must serve where he can render the greatest professional service to the nation. * * *

"In considering the classification of a registrant who is a qualified medical doctor, dentist or doctor of veterinary medicine, the local board may, if it finds such registrant should not be deferred for reasons other than dependency, take into consideration the pay and allowances which such registrant would receive in the event he is commissioned in the armed forces. In practically all instances the pay and allowances of such registrant, if he were commissioned as an officer, would be sufficient to eliminate the question of dependency."

Under an agreement between Procurement and Assignment Service and Selective Service, local boards are under orders to ask, through the State Director, the State Procurement and Assignment Committee to advise them as to the "availability" of a physician before placing him in Class 1-A. Also, local boards have been instructed to grant limited deferment to any doctor of medicine being placed in Class 1-A to enable him to apply for and receive a commission in the Medical Corps of the Army or Navy.

HOSPITALS MUST MAKE ADJUSTMENTS

The foregoing statement of policy issued by the Director of the Selective Service System and a policy recently announced by the Surgeon General to the effect that no doctor under 37 years of age should be considered "essential" in a civilian capacity, after he has completed a year's internship, if a replacement by an older man or one not eligible for military service can possibly be secured, raises new and complicated problems for medical schools, hospitals and other institutions utilizing younger physicians as instructors or as house men.

In order to warn Ohio's medical schools and hospitals of this new trend so as to give them time to make readjustments, if possible, the Ohio Procurement and Assignment Committee on May 15 sent a letter to Ohio medical schools, and to hospitals approved for internships and residencies, reading in part as follows:

"The committee feels that you should know of the insistence of the Surgeon General, that no doctor under 37 years of age be considered 'essential' in a civilian capacity, after he has completed a year's internship, if replacement by an older man or one not eligible for military service can possibly be secured.

"The committee directed me to say that, as we interpret the trend, it is going to be increasingly difficult for a hospital, or a clinic, or a medical school to defend before a local Selective Service Board the claim that any doctor under 37 years of age is essential in a teaching position, as a fellow, or as a resident, beyond the first intern year.

"The committee expressed the feeling that you should be forewarned of this trend, that you might have time to take such steps as may be possible to meet a situation which daily becomes more critical."

USE OF LAY ASSISTANTS SUGGESTED

The question of keeping hospitals supplied with enough interns and residents to enable the institution to maintain efficient services is being considered by qualified committees of both the medical profession and hospital executives. It is a difficult problem and one which cannot be easily solved.

Some who have studied the question have recommended that many of the technical and clerical duties which have previously been performed by interns and residents will have to be delegated to trained lay technicians and clerks, preferably women. These experts warn, however, against turning over to non-professional employes some of the responsibilities now carried out by interns and residents. To meet this problem, they emphasize that staff physicians must be more considerate of the time of the few interns or residents who may be employed by a hospital and must themselves perform some of the services which heretofore have been assigned to interns and residents. As to medical schools, it is pointed out that older physicians must assume more teaching responsibilities.

Physicians entering the Army or Navy as medical officers should arrange to continue professional liability insurance coverage, the Bureau of Legal Medicine of the American Medical Association has advised.

The Judge Advocate General of the Army has held that members of the Army are entitled to the same civil rights of action against a physician as they would have in civilian life.

In event of suit a medical officer may have the case tried in the Federal Courts and a United States Attorney will be assigned to defend him. The War Department will furnish expert testimony and other assistance but will not satisfy judgments.

Physicians entering the service should discuss this subject with the proper representative of the insurance company in which they have professional liability coverage.

Another problem which has been discussed by the Committee on Medical Preparedness of the State Medical Association and other groups is that involving hospitals which are not able to get even a minimum number of interns, and in some instances, none.

It has been suggested by some that hospitals should voluntarily work out a plan of pooling the supply of available interns and then allot a certain number to each hospital, based on the size and services carried on in the institution. Others have felt that the Army should attempt to solve this problem by making a distribution of interns to hospitals. This could be done inasmuch as the Army has control over most of the present interns because they have enlisted in Medical Administrative Corps, and virtually has control over all interns because they are subject to active duty under Selective Service.

Efforts are being made by the Ohio Procurement and Assignment Committee to protect hospitals and medical schools but future decisions of the committee, obviously, must be based on war developments generally and especially on the demands of the Army and Navy for additional medical personnel.

Commission Urges Physicians To Aid In Speeding Up Filing of Workmen's Compensation Claims

In an effort to expedite the adjudication of Workmen's Compensation claims, the State Industrial Commission has been urging employers throughout the state to file claims at the earliest possible date after an employee has been injured. The Commission is also asking the cooperation of physicians in the prompt completion of that part of the application forms which require execution by the attending physician. A statement on the subject, prepared by John D. Goodrich, supervisor of claims for the Commission, follows:

"The Industrial Commission of Ohio is at the present time making a concerted effort to have claims filed as soon after the occurrence of an injury, or the contracting of an occupational disease, as possible, particularly claims involving payment of compensation to injured workmen.

"A survey of the claims filed during the past five months discloses that in most cases approximately 70 per cent of the delay occurs between the date the injury is received and the date the application is filed with the Industrial Commission. A great many of the employers in the State have been contacted in an effort to have applications involving payment of compensation filed at the earliest possible date.

"In order to accomplish this purpose, it is essential that the attending physician in each case complete his part of the application and return it to the employer at the earliest possible time so that the application may be filed with the Industrial Commission and the injured workman may start to receive compensation quickly. The cooperation of the medical profession is essential to accomplish this purpose."

Certain Hospitals May Get Financial Aid For Blood and Plasma Banks

Regulations for the administration of the Blood and Plasma Bank Program of the Medical Division of the United States Office of Civilian Defense have now been prescribed, and funds are available for grants to assist approved hospitals in establishing blood and plasma banks. Only hospitals within 300 miles of the Atlantic, Pacific or Gulf coasts are eligible for such grants. After July 1, 1942, these geographical restrictions may be modified, so that grants may be made to inland hospitals. Applications should be addressed to the Chief Medical Officer, United States Office of Civilian Defense, Washington, D. C.

Technical manuals on blood and plasma banks, prepared by the Sub-committee on Blood Substitutes of the Division of Medical Sciences, National Research Council are now available for distribution on request of any hospital to the Chief Medical Officer, Office of Civilian Defense.

The Red Cross has established eighteen donor centers in various parts of the country which are successful in obtaining an adequate supply of blood donors for military purposes. Blood for the production of dried plasma for Civilian Defense purposes will also be obtained from these sources.

Hospitals which establish their own blood and plasma banks with the financial assistance of the Office of Civilian Defense are advised to build up their reserves of blood and plasma by expanding blood collection from relatives and friends of patients who are to receive transfusions. According to the Office of Civilian Defense, a public campaign for volunteer donors which may compete with the work of the Red Cross should be avoided if possible. If public solicitation is necessary, hospitals should appeal to the local chapters of the American Red Cross for assistance in recruiting hospital donors. Blood donor campaigns by agencies other than the Red Cross will tend to confuse the public and may interfere with the blood collection by the Red Cross for the armed forces, the O. C. D. states.

New Officers of Hospital Association

Wilson L. Benfer, superintendent of Toledo Hospital, was named president-elect of the Ohio Hospital Association at the closing session of the 28th annual convention, April 23, at the Neil House, Columbus. Dr. J. H. J. Upham, dean-emeritus of the Ohio State University College of Medicine, assumed the presidency. Other officers are: Lee Lamphere, superintendent of Lutheran Hospital, Cleveland, first vice- president; Sister Bertille, superintendent of St. Joseph's Hospital, Lorain, second vice-president; Msgr. Maurice F. Griffin, Cleveland, treasurer; and George Fishback, Columbus, executive secretary.

Additional Ohio Physicians Are Granted Commissions In Army and Navy; Promotions and Corrections Listed

IN the May issue *The Ohio State Medical Journal* there appeared the names of more than 700 Ohio physicians serving as medical officers in the Army or Navy. Since that issue went to press information has been received that 129 Ohio physicians have been commissioned and are on active duty, or are expected to be, in the very near future:

ADDITIONAL OHIO PHYSICIANS GRANTED COMMISSIONS

Adams, Archibald M. Lima....1st Lt., USA
Alexander, J. A. Cleveland....Capt., USA
Altmaier, Clovis J. Marion....1st Lt., USA
Arn, Roy D. Dayton....Major, USA

Baker, Colvin L. Cridersville....1st Lt., USA
Bavor, Herbert J. Berea....1st Lt., USA
Berg, Theodore Elyria....1st Lt., USA
Berns, Charles Cleveland....Major, USA
Bien, Philmour M. A. Mansfield....1st Lt., USA
Birkbile, Robert D. Defiance....1st Lt., USA
Blanton, Gerald W. Athens....1st Lt., USA
Boyer, Byron E. Cincinnati....Major, USA
Brogden, Wm. E. Canton....Major, USA
Brown, Harry G. Cincinnati....Capt., USA
Browne, K. B. Whitehouse....1st Lt., USA
Buchanan, Richard L. Cincinnati....1st Lt., USA
Burrows, J. W. Erie Beach....1st Lt., USA

Campbell, Rundle D. Mansfield....1st Lt., USA
Craddock, William H. Cincinnati....Major, USA
Cramer, Irving I. Cleveland....1st Lt.,USA
Cronin, John F. Cincinnati....Capt., USA
Crosby, Harold O. Findlay....Capt., USA
Crouch, Corbin L. Akron....1st Lt., USA
Cukerbaum, Alfred R. Youngstown....Lt., USN
Cumming, Robert Akron....Capt., USA
Curran, Thomas R. Columbus....1st Lt., USA

DeBold, J. A. Wilmington....1st Lt., USA
DeWeese, Marion S. Kent....1st Lt., USA
Dickson, R. D. Gibsonburg....1st Lt., USA
Donath, Stephen Toledo....1st Lt., USA
Doster, G. L. Paulding....Capt, USA
Dowling, James R. Massillon....Capt., USA
Durschlag, Sidney W. East Cleveland....1st Lt., USA

Elliott, Wm. E. Alliance....Capt., USA
Emick, Glenn O. Columbus....Major, USA
Engelman, Elmer D. Chillicothe....1st Lt., USA
Epstein, Harold C. Cleveland Heights....1st Lt., USA

Falk, John H. Cincinnati....1st Lt., USA
Feuer, Sidney Cleveland....1st Lt., USA
Fleming, John G. Cincinnati....Lt., USN
Folin, John Joseph Barberton....Capt., USA
Freeman, Hal E. Cleveland....Capt., USA

Garvin, Edward R. Toledo....Lt., USN
Gates, S. E. Conneaut....1st Lt., USA
Geiss, Ferdinand V. Cleveland....1st Lt., USA
Gignac, Ralph D. Dayton....1st Lt., USA
Greenberger, Maurice L. Canton....1st Lt., USA
Greentree, Leonard B. Nelsonville....1st Lt., USA

Haas, Max Cincinnati....1st Lt., USA
Hafkenschiel, Jos. H. Youngstown....1st Lt., USA
Hall, Augustus A. Columbus....Major, USA
Hanson, Kenneth B. Cincinnati....Capt., USA
Harris, William B. Columbus....1st Lt., USA
Harsha, James M. Washington, C. H....Capt., USA
Hatcher, Wm. F. Youngstown....Capt., USA
Haubrich, Robert C. Pataskala....1st Lt., USA
Hauser, Charles U. Cincinnati....Capt., USA
Hedges, Jasper M. Columbus....1st Lt., USA
Hilsinger, Elliot A. Cincinnati....1st Lt., USA
Hinnant, Iredell M. Shaker Heights....Capt., USA
Hotz, Richard Toledo....Capt., USA
Houghton, Ben Columbus....Capt., USA

James, Dorrence S. Delaware....Capt., USA
Johnson, Cecil A. Canton....1st Lt., USA

Klatman, Samuel Youngstown....1st Lt., USA
Kobacher, J. Lester Toledo....Lt. Comdr USN
Kogut, Lewis V. Cleveland....Capt., USA
Kraus, Karl J. Cincinnati....1st Lt., USA
Kyman, Seymour Cleveland Heights....1st Lt., USA
Laidlaw, Arthur E. Cincinnati....1st Lt., USA
Langacher, Karl T. Mansfield....1st Lt., USA
Levine, Milton New Boston....1st Lt., USA
List, Ellis W. Andover....Lt. Comdr., USN
Lustberg, Alfred Cincinnati....1st Lt., USA
Lyle, Herbert P. Cincinnati....Lt. Comdr., USN

Maxwell, Frank H. Mansfield....Capt., USA
McAllister, Earl D. Chillicothe....Capt., USA
McCandless, Harvey G. Cincinnati....Capt., USA
McIver, John M. Cleveland....1st Lt., USA
Merchant, Frederick T. Marion....1st Lt., USA
Merrill, Willis B. Columbus....Capt., USA
Miller, Michael M. Steubenville....Capt., USA
Miller, Rollis R., Jr. Cleveland....1st Lt., USA

Neese, John Mt. Victory....1st Lt., USA
Neiswander, Paul L. Ada....1st Lt., USA
Newell, T. E. Dayton....Lt. Comdr.,USN
Niple, Richard A. Columbus....1st Lt., USA
Nuckols, C. R. Cleveland....Lt., USN

Ormond, A. C. Zanesville....Capt., USA

Papierniak, F. B. Cleveland....Capt., USA
Pinnell, Earl E. Osborn....1st Lt., USA
Porter, Wm. L. Cincinnati....1st Lt., USA
Pumphrey, Gordon H. Mt. Vernon....Capt., USA

Rhodes, William M. Columbus....1st Lt., USA
Robinson, Edward L. Xenia....1st Lt., USA
Rogers, John A. Youngstown....1st Lt., USA
Rohner, R. G. Columbus....1st Lt., USA
Rowlands, Richard R. Cincinnati....1st Lt., USA
Rusk, Ross P. Cadiz....1st Lt., USA

Sacheroff, Louis Lakewood....Capt., USA
Sanderson, George Wauseon....1st Lt., USA
Sawyer, Benjamin North Star....1st Lt., USA
Schwebel, Samuel Youngstown....Lt., USN
Sharp, William T. Chillicothe....Capt., USA
Sheets, Maurice V. Newcomerstown....Lt., USN
Shepard, Jos. H. Columbus....1st Lt., USA
Shimansky, L. E. Vermillion....Capt., USA
Simon, Aaron I. East Cleveland....1st Lt., USA
Slaughter, Fred M. Steubenville....Capt., USA
Smith, Charles M. Portsmouth....Lt., USN
Smith, Dallas E. Avon....1st Lt., USA
Smith, Eldon E. Canton....1st Lt., USA
Smith, F. G. Marion....Capt., USA
Start, Gwyn H. Toledo....1st Lt., USA
Stein, Carl Loudonville....1st Lt., USA
Stinson, Wilbur Dayton....1st Lt., USA
Stires, Fred H. Canton....Capt., USA
Summers, John H. Cleveland....1st Lt., USA

Talbot, David R. Mansfield....Lt. Comdr., USN
Thomas, James D. Columbus....1st Lt., USA
Tims, Walter J. Youngstown....1st Lt., USA

Ulichny, Karl S. Toledo....1st Lt., USA

Walzer, Joseph Cleveland Heights....1st Lt., USA
Werner, Merrill Dayton....1st Lt., USA
Wetzel, Ralph E. Cuyahoga Falls....Lt., USN
Wharton, Joseph E. Athens....1st Lt., USA

Young, Edward B. Lima....1st Lt., USA

Zeligs, Myer A. Cincinnati....Lt., USN
Zucker, Ralph L. Cincinnati....1st Lt., USA

WIN PROMOTIONS

The following Ohio physicians have recently received promotions in rank, as indicated after their name:

Bill, Herbert E. Cleveland....Major, USA
Blinn, John C. New Philadelphia....Major, USA
Cushing, E. H. Cleveland....Comdr., USN
Edwards, Thomas M. Cincinnati....Capt., USA
Gardner, J. Stanley Cleveland....Lt. Comdr., USN
Kane, Maurice M. Greenville....Major, USA
Lacock, Wilford C. Beaverdam....Capt.,USA
Margolis, Meyer N. Cincinnati....Capt., USA
Murbach, Clarence F. Archbold....Lt. Col., USA
Sparks, Aubrey L. Warren....Capt. USA

CORRECTIONS TO MAY LIST

The following Ohio physicians who were listed as on active duty are not now on duty with the armed forces, according to information received since the May issue of *The Journal* went to press.

Dial, Donald	Cleveland	British Medical Corps
Foertmeyer, Adolphus Wm.	Cincinnati	Major, USA
Lowery, Roswell	Cleveland	1st Lt., USA
Obrist, George E.	Portsmouth	
Thomas, Merthyn A.	Cleveland	Lt. Comdr., USN
Walker, Winston F.	Rocky River	Major, USA

Through error, *The Journal* listed the following persons as medical officers on active duty. They are not physicians and should not have appeared in the list published in the May issue.

Bernel, Emmet	Akron	1st Lt., USA
Brooks, Roy E.	Akron	1st Lt., USA
Farver, W.	Akron	Capt., USA
Kreps, Adam	Akron	1st Lt., USA
Short, Hubert	Akron	1st Lt., USA
Stineman, John Burget	Cincinnati	1st Lt., USA

Loan Made by Kellogg Foundation to Aid Medical Students

Loan funds for University of Cincinnati College of Medicine students of limited financial means will be made available soon through a $10,000 grant from the W. K. Kellogg Foundation, Battle Creek, Mich., according to a recent announcement of the Board of Directors of the University. President Raymond Walters said the gift would aid the College of Medicine in carrying out its accelerated program.

The offer was outlined in a letter from the Kellogg Foundation, which stated in part:

"While this fund is primarily intended for students who have been accepted by the military services, other students may also be assisted since the problem of staffing hospitals and similar institutions in the coming war years is well recognized.

"Funds granted by the foundation under this plan will be in the nature of a gift to the school and will not be returned. Should loan funds be set up, payments will be made to the school, thus providing a continuing or revolving fund."

The letter added that after September 1 the foundation may be able to extend further assistance "should circumstances warrant such action." It indicated that the foundation is making a similar offer to nearly 150 American and Canadian schools of medicine, dentistry, public health, and nursing. Other institutions which have accepted the Foundation's offer include the colleges of medicine and dentistry, Ohio State University, Columbus.

Cleveland—Dr. J. J. Thomas is chairman of the Continuous Alumni Fund campaign of Western Reserve University School of Medicine.

Proposes Medical Costs as Income Tax Law Deduction

Under existing law, expenses incurred by an individual for medical care are considered to be personal expenses and as such not deductible in connection with federal income taxes. On March 30, the tax adviser to the Treasury Department, Professor Randolph Paul, offered the following recommendations to the House Committee on Ways and Means which is at present holding hearings preparatory to formulating a new Federal revenue act:

"In connection with our study of the taxation of family income, we have re-examined carefully the entire problem of the exemptions and credits allowed under the income tax for the purpose of taking into account the family status. In view of the increases in tax rates which the present situation has necessitated, we feel that in some respects these exemptions and credits are now inadequate. We, therefore, suggest to the Committee that to achieve a more equitable distribution of the tax burden, it would be desirable to enact the following changes:

"1. **Medical Expenses**—A deduction should be allowed for extraordinary medical expenses that are in excess of a specified percentage of the family's net income. The amount allowed under such a deduction should, however, be limited to some specified maximum amount. . . ."

In explanation of the use of the term "extraordinary medical expense," Prof. Paul said it had reference to the amount expended and not to the character of the illness. Medical expenses he said by way of example, totalling less than 5 per cent of the net income of the taxpayer might be considered as **ordinary** medical expense and would not be deductible. He suggested a maximum amount of $2,500 to be allowed as a deduction. This recommendation is now before the House Committee on Ways and Means and will no doubt be given consideration along with the other recommendations that have been made.

The income tax laws of Idaho and Minnesota now authorize deductions of expenses of medical care.

Ohio Radiological Society Meeting

The annual meeting of the Ohio State Radiological Society was held as a business luncheon at the Neil House, Columbus, April 30. The meeting was well attended, there being members from all the larger cities of Ohio. Guests were Dr. John H. Lawrence, Berkeley, California, and Dr. M. C. Sosman, Boston, Massachusetts. The officers elected for the ensuing year were Dr. U. V. Portmann, Cleveland, president; Dr. E. C. Baker, Youngstown, vice-president, and Dr. J. E. McCarthy, Cincinnati, secretary and treasurer.

Official Proceedings of the House of Delegates, Ohio State Medical Association, 96th Annual Meeting, Columbus, April 28-30, 1942

MINUTES OF FIRST SESSION

THE 96th Annual Meeting of the Ohio State Medical Association was officially opened Tuesday, April 28, 1942, at 10 A. M., with a meeting of the House of Delegates in the Century Room, Neil House, Columbus. Dr. Harry E. LeFever, president of the Columbus Academy of Medicine, called the meeting to order. He welcomed the delegates and the members of the Association, generally, to Columbus. After complimenting Dr. Harry V. Paryzek, the President, on a very successful tenure of office, Dr. LeFever introduced Dr. Paryzek who, at that time, presented his Annual Address. (Published in full on pages 582 to 586 of this issue of *The Journal.)*

President Paryzek then instructed the Executive Secretary to call the roll of delegates. This was done with 112 delegates and members of The Council being present.

On **motion** by E. F. Kieger, Cleveland, seconded by G. W. Flory, Eaton, and **carried**, the minutes of the sessions of the House of Delegates held at the 1941 Annual Meeting in Cleveland were **approved.**

REFERENCE COMMITTEES

The following reference committees, to handle various business matters coming before the House of Delegates, were appointed by President Paryzek:

Presidential Address—Frank M. Wisley, Findlay, chairman; J. Edwin Purdy, Canton; R. B. Wynkoop, Ashtabula; D. J. Slosser, Defiance; F. N. Nagel, Toledo; John S. Hattery, Mansfield.

Resolutions—Carl A. Lincke, Carrollton, chairman; A. W. Carley, Dayton; Robert Conard, Wilmington; R. R. Hendershott, Tiffin; R. D. Herlinger, Warren; E. F. Kieger, Cleveland; J. N. McCann, Youngstown; Russel G. Means, Columbus; Carl R. Steinke, Akron; E. O. Swartz, Cincinnati; G. A. Woodhouse, Pleasant Hill.

Annual Reports—H. C. Messenger, Xenia, chairman; F. A. LeFevre, Cleveland; G. R. Micklethwaite, Portsmouth; John A. Fraser, East Liverpool; C. E. Northrup, McConnelsville.

Credentials of Delegates—D. C. Houser, Urbana, chairman; Waite Adair, Lorain; J. C. Boyce, Fremont; John L. Jones, Medina; Charles J. McDevitt, Cincinnati.

Tellers and Judges of Election—G. M. Lane, Springfield, chairman; George W. Heffner, Circleville; Ross M. Knoble, Sandusky; C. A. Marquart, Crestline.

Time and Place of 1943 Annual Meeting—M. D. Shilling, Ashland, chairman; Charles T. Atkinson, Middletown; W. E. Borden, Delaware; James F. Lee, Mt. Vernon; Charles W. Pavey, Columbus.

ANNUAL REPORTS

Annual Reports of officers and committees, published in the April, 1942, issue of *The Ohio State Medical Journal* were submitted by title only and referred to the Reference Committee on Annual Reports.

A report of the Judicial and Professional Relations Committee, which had not been published in *The Journal,* was submitted by the Executive Secretary on behalf of James G. Kramer, Akron, chairman of that committee. It read as follows:

"During the past year the Judicial and Professional Relations Committee has not been called upon to consider any question relating to disciplinary action against a member of the Ohio State Medical Association. However, it has reviewed amendments to constitutions and by-laws of six or seven county medical societies and submitted recommendations regarding them to The Council, the agency of final approval.

"The work of the committee was made considerably easier this year because the societies submitting amendments heeded the recommendation made by the committee in its 1941 report, namely, that a closer relationship be established between the committee and county medical societies intending to amend their constitution and by-laws, especially at the time such amendments are being drafted. Most of the societies which submitted amendments during the past 12 months, consulted the committee prior to the adoption of the amendments by the society. As a result, conflicts with the provisions of the Constitution and By-Laws of the State Association were avoided at the very beginning and recommendations of the committee were available to the local committee at the time the proposed amendments were being written.

"The committee hopes that all county societies will follow the above procedure. By doing so they can avoid much confusion and assure prompt action by this committee and The Council.

"In conclusion, the committee desires to offer this suggestion to societies which may be contemplating changes in their constitution and by-laws: A constitution and by-laws should be a set of basic principles and essential procedures. It should not contain voluminous detail. It cannot be clear and easily enforced if it is weighted with provisions designed to take care of a multitude of contingencies, most of which can be disposed of by official action of the society under general rules of procedure.

"As chairman, I wish to take this opportunity to thank the following who are members of the committee, for their fine cooperation during the year: Drs. Phillip T. Knies, Columbus; Howard

D. Fabing, Cincinnati; J. E. Tuckerman, Cleveland; and G. A. Woodhouse, Pleasant Hill.

James G. Kramer, Akron, Chairman."

NEW REPORT OF PREPAREDNESS COMMITTEE

A Supplemental Report of the Committee on Medical Preparedness, prepared by Robert Conard, Wilmington, chairman of that committee, was presented by the Executive Secretary on behalf of Dr. Conard. It read as follows:

"Since preparation of the Annual Report of the Committee on Medical Preparedness which was published in the April issue of *The Ohio State Medical Journal*, it has been possible to assemble some additional data regarding the war efforts of the medical profession of Ohio, which are presented in this supplemental report of the committee.

"Statistics which have been tabulated give support to the statement that Ohio's essential home-front medical services are being preserved while at the same time the state is meeting its obligation in furnishing physicians to the armed forces of the country.

"In some communities fear has been expressed that those communities would be stripped of physicians or that so many physicians would leave to join the Army or Navy that the number of physicians remaining at home would be inadequate to meet local health and medical needs.

"In the opinion of the Committee on Medical Preparedness, this fear is not supported by fact. In the first place, the figures show that Ohio physicians now in military service have, in nearly all instances, come from communities which can spare them. In the second place, the committee, functioning as the Ohio Committee on Procurement and Assignment of Physicians for the United States Office of Defense Health and Welfare, has earnestly endeavored to assist in the enrollment of a sufficient number of physicians for the armed forces in such a way that health and medical facilities of no community will be endangered.

"The committee will make every possible effort to see that a fair and reasonable distribution of the medical personnel of Ohio is maintained. Obviously, the armed forces must be supplied with an adequate number of medical officers. However, these officers must be supplied by communities which can spare physicians and still have a sufficient number remaining at home to meet the needs of the civilian population, including workers in war industries. Also, the faculties of Ohio's three medical schools must be protected by permitting essential teachers to remain on the job so there will be no breakdown in the continuous supply of new physicians. A sufficient number of key men on hospital staffs must be retained at home to permit hospitals to function efficiently.

"These are the objectives of the committee and if they are followed to a reasonable degree, the armed forces will get their full quota of medical officers from Ohio but at the same time the civilian population will be well protected.

"At present approximately 750 Ohio doctors of medicine are on duty as medical officers in the Army and Navy. This number of volunteer medical officers constitutes approximately 8.8 per cent of the estimated 8,500 physicians in active practice in Ohio.

"Unofficial figures in the committee's possession show that the eight metropolitan counties of the state have furnished approximately 71 per cent of the Ohio physicians now in military service, although they constitute only little more than half the state's population. This is well in accord with the known fact that in large cities the number of residents per physician is considerably smaller than in rural areas, and it is proof that the committee's policy of taking the small community's medical needs into consideration is properly functioning.

"Obviously, it is impossible to predict what future demands will be made on Ohio's medical profession as the war continues. It has been estimated unofficially that approximately 16,000 additional physicians will be needed by the Army, Navy and various governmental agencies utilizing medical personnel by the end of 1942. If this over-all figure is attained, it is quite likely that between 500 and 600 additional Ohio physicians will be in uniform by the end of the year.

"Up to the time this supplemental report was written, approximately 475 physicians, in addition to those now in the services, had volunteered and are awaiting their commissions. The new Procurement and Assignment forms which have been distributed to all physicians in the country undoubtedly will produce many more volunteers from among Ohio physicians. Although all physicians under 45 years of age are subject to military service under the Selective Service Act, it is the opinion of this committee that the pool of volunteers among members of the medical profession will be entirely adequate to meet the needs of the Army and Navy.

"The committee hopes that every Ohio physician will enroll with the Procurement and Assignment Service, offering his services in some capacity. Those of military age who are not engaged in some work at home which is considered by the government to be "essential" to the war effort should seriously consider applying for a commission in some branch of the service. Those above active military age and those who can not meet the physical requirements of the Army or Navy should seriously consider volunteering their services with some governmental agency if their services are needed. Many of the needs of the medical schools, hospitals, industrial plants and civilian population generally will have to be met by physicians of the older age group. Some dislocations will be inevitable but with all members of the medical profession cooperating in this greatest problem of distribution of medical personnel which has ever confronted the country the responsibility can be met."

The two foregoing reports were automatically referred to the Reference Committee on Annual Reports.

NOMINATING COMMITTEE

The House of Delegates then elected the following Nominating Committee to present the names of candidates for the various offices, with the exception of President-Elect, at the second session of the House of Delegates on Wednesday:

First District—Emil R. Swepston, Cincinnati.
Second District—R. D. Dooley, Dayton.
Third District—J. R. Tillotson, Lima.
Fourth District—D. J. Slosser, Defiance.
Fifth District—M. F. Oman, Cleveland.
Sixth District—A. R. Basinger, North Canton.
Seventh District—E. L. Miller, Bowerston.
Eighth District—C. E. Northrup, McConnelsville.

Ninth District—R. M. Andre, Waverly.
Tenth District—John M. Thomas, Columbus.
Eleventh District—Ross M. Knoble, Sandusky.

INTRODUCTION OF RESOLUTIONS

The following resolutions were introduced and referred, without debate to the Reference Committee on Resolutions:

Resolution A. Introduced by John E. Rauschkolb, Cleveland:

WHEREAS, It has been reported that the Social Security Board intends to recommend to The Congress that the Social Security Act be amended to provide hospitalization benefits, in cash or in service, to all insured under the Social Security Act and to provide for additional payroll deductions for the purpose of financing such benefits, and,

WHEREAS, This proposed expansion of the Social Security System must be considered as a part of a movement toward complete plans for compulsory sickness insurance and the socialization of all professions and businesses, which principle has been consistently opposed by the medical profession of Ohio for the reason that it would lead inevitably to a lowering of the standards of medical care, and,

WHEREAS, An amendment of this character would virtually destroy existing prepayment voluntary plans which provide hospitalization or medical services to those who subscribe to such plans and would eliminate any incentive for the orderly development of additional sound voluntary plans under the direction of hospital and medical organizations, therefore

BE IT RESOLVED, That the Ohio State Medical Association, in session April 28, 29, and 30, 1942, go on record as being unalterably opposed to any proposal for compulsory insurance of hospitalization or medical service.

Resolution B. Introduced by Gordon G. Nelson, Youngstown; on behalf of the Council of the Mahoning County Medical Society:

WHEREAS, Many specialists in medicine in the military service are not now performing the kind of medical service for which they are trained and qualified; and

WHEREAS, We believe this to be an inefficient and wasteful use of trained personnel; therefore

BE IT RESOLVED, That the Ohio State Medical Association, through the House of Delegates, in annual session held April 28, 1942, be instructed that this Association go on record as urging the Procurement and Assignment Service to make prompt and vigorous effort to see that these men in our nation's Armed Forces are promptly assigned to the type of work for which they are especially trained and qualified.

Resolution C. Introduced by Gordon G. Nelson, Youngstown, on behalf of the Council of the Mahoning County Medical Society:

WHEREAS, The present emergency has taken into active military service many of our physicians under the age of 45 years; and

WHEREAS, In certain rural communities this practice has taken and will take away the only physician within a wide radius of such communities, thereby jeopardizing the health of the people in such areas; and

WHEREAS, The amount of medical service required in many of these communities is greatly in excess of the capacity of older physicians; therefore

BE IT RESOLVED, That the Ohio State Medical Association, through the House of Delegates, in annual session held April 28, 1942, be instructed to request the Procurement and Assignment Service to seek the cooperation of local draft boards to the end that the latter shall consult with the local medical societies as to the advisability of continuing physicians in their practice in such rural communities, whose absence would be detrimental to the health of the community.

Resolution D. Introduced by F. A. LeFevre, Cleveland:

WHEREAS, The task of filling out forms for insurance companies is becoming an increasing burden on the medical profession, and

WHEREAS, Many of these forms are not essential to the immediate care of the sick public, and

WHEREAS, The insurance companies or their clients are the immediate beneficiaries of the services rendered by the medical profession in filling out such blanks,

BE IT HEREBY RESOLVED, That the Council of the Ohio State Medical Association be instructed by the House of Delegates to draft a standard short form for use of its members in answering inquiries by insurance companies, and further

BE IT RESOLVED, That the Ohio State Medical Association seek to secure the adoption of such blank by insurance companies in lieu of present forms.

INVITATION FOR 1943 ANNUAL MEETING

On behalf of the Toledo Academy of Medicine and the City of Toledo, A. A. Brindley, Toledo, invited the Ohio State Medical Association to hold its 1943 Annual Meeting in that city. The invitation was referred without discussion to the Reference Committee on Time and Place of Annual Meeting.

The House of Delegates then recessed until Wednesday afternoon, April 29.

MINUTES OF THE SECOND SESSION

The second and final session of the House of Delegates 96th Annual Meeting was called to order by President Paryzek at 1:30 P. M., Wednesday, April 29, in the Century Room, Neil House. The roll call showed 116 delegates and members of The Council present.

TIME AND PLACE FOR 1943 ANNUAL MEETING

On behalf of the Reference Committee on Time and Place of 1943 Annual Meeting, M. D. Shilling, Ashland, chairman, presented the following report:

"The Reference Committee has considered the invitation extended the Ohio State Medical Association for its 1943 Annual Meeting, and it is the opinion of the committee that the facilities offered by the Toledo Academy of Medicine and the City of Toledo are entirely adequate to handle this meeting. We also take pleasure in honoring our Incoming President, Dr. E. J. McCormick, in recommending that the 1943 convention be held in Toledo. We fully realize, however, that due to the present uncertainty of conditions in the future, some emergency may arise whereby our plans may need to be changed. Therefore, we feel that The Council should have absolute freedom to make any changes necessitated by such an emergency and that the time of the meeting should be determined by The Council at a later date."

On **motion** by E. F. Kieger, Cleveland, seconded by Ross M. Knoble, Sandusky, and **carried** the report of the Reference Committee was **adopted.**

REPORT OF COMMITTEE ON PRESIDENTIAL ADDRESS

Frank M. Wiseley, Findlay, chairman of the Reference Committee on Presidental Address, presented the following report which was **adopted** on motion by L. Howard Schriver, Cincinnati, seconded by J. R. Tillotson, Lima, and **carried:**

"Your committee submits the following report on the Address of our President, Harry V. Paryzek, made before the House of Delegates on April 28, 1942.

"The broad scope of the work performed by our State Association under the able leadership of our President was apparent to your committee. This has meant closest cooperation between the various committees and our Headquarters Staff, all under the leadership of our President.

"Your committee commends the spirit in which our President bestows praise upon The Council, the Committees, the Headquarters Staff and his co-workers. This will live long in the annals of medicine.

"Your committee further desires to emphasize two of the outstanding achievements mentioned in our President's Address. The first was the formation of a committee to carry out and study the various plans pertaining to House Bill 51. We note with pleasure that this committee has prepared a 'Handbook on Medical Service Plans' to be made available to our county medical societies as they desire to study the problem and that this information will be kept up to date.

"The second achievement has been the work of the Committee on Medical Preparedness. It is evident that the committee is well aware of the seriousness of the state of war. It has cooperated with all national and state agencies to the utmost. The Procurement and Assignment problem as worked out is of utmost importance to every doctor in the state. Appreciation has been expressed to all those who have helped the committee.

"Further work during the past year has been carried on by the Sub-Committee on Workmen's Compensation with representatives of the Industrial Commission. As pointed out by the President, a special committee is at work studying the laws and regulations pertaining to control of tuberculosis, and will make definite recommendations for necessary changes in such laws and regulations at the conclusion of its study. The Committee on Poor Relief found that problem to be well handled in rural counties. In cooperation with the State Department of Health there has been a standardization of laboratories for premarital serological examinations. The Committees on Public Education and Postgraduate Education have faithfully carried out their programs the past year. The Sub-Committee on Legislation is prepared to advise you concerning the candidates to be chosen at the coming Fall election. Well-earned praise is given to the Editor and Staff of *The Ohio State Medical Journal.* Your committee desires to express the thought that Doctor Paryzek shows himself an able leader by his 'future planning' to meet the problems in the practice of medicine, as well as his work accomplished during the past year. He is convinced that changes must be made by the profession if it is to continue free."

REPORT OF COMMITTEE ON ANNUAL REPORTS

Due to the absence of H. C. Messenger, Xenia, chairman of the Reference Committee on Annual Reports, John A. Fraser, East Liverpool, presented the following report of that committee which was **adopted** on **motion** by Dr. Fraser, seconded by Ralph L. Rutledge, Alliance, and **carried:**

"The Reference Committee on Annual Reports, after due consideration of the reports of the various committees, as printed in the April, 1942, issue of *The Ohio State Medical Journal,* herewith submits the following report:

"1. The firm of Keller, Kirschner, Martin and Clinger, Certified Public Accountants of Columbus, Ohio, audited the books of the Ohio State Medical Association and *The Ohio State Medical Journal.* Your Reference Committee approves the report made by the **Treasurer and Committee on Auditing and Appropriations.**

"2. **Committee on Public Relations and Economics:** The comprehensive report of this important body and its sub-committees clearly indicates no curtailment in its widespread activities, nor in the zeal and untiring efforts of the members of this committee. They successfully handled many matters of constructive value to the Association with reference to the State Industrial Commission; several points were clarified regarding the fee schedule, tending to better harmonize the physician with this Commission. Medical service plans now subordinated to the war effort are being fostered and kept alive until such time as it seems feasible to put them into effect. The committee has been competently handling items coming under such headings as poor relief, tuberculosis, premarital examination laws, cooperation with welfare groups, and legislation pertaining to the medical profession. The report of this committee is of such scope that a brief resumé by the Reference Committee cannot begin to cover its program and accomplishments. We therefore advise that the complete report be read in detail in *The Journal* and we sincerely express our appreciation for the meritorious services given to the Association.

"3. **Committee on Medical Preparedness:** (a) Since 1940 when this committee was appointed, its duties and responsibilities have increased beyond expectations, due to the speed-up in actual war preparations and the immediate great need for physicians in the various branches of the armed forces. Through cooperation with State Selective Service Headquarters, medical examiners were chosen for all local Selective Service boards. As the Ohio Committee on Procurement and Assignment, it has and is working overtime to carry out creditably the complicated duties of this project. We feel this committee is deserving of especial commendation.

(b) **Medical Preparedness Supplementary Report:** Statistics quoted by this committee support the statement that Ohio's essential home-front medical services are being preserved, while at the same time, the state is meeting its obligations in furnishing physicians to the armed forces. The committee is endeavoring to see that a fair and reasonable distribution of the medical personnel of Ohio is maintained. Obviously, the armed forces must be supplied. However, these officers must be supplied by communities that can spare physicians and still have a sufficient number remaining at home to meet the needs of the civilian population. Also the faculties of Ohio's three medical schools must be protected by permitting essential teachers to remain on the job. These are the objectives of the committee. In conclusion, the committee hopes that every Ohio physician will enroll with the Procurement and Assignment Service, offering his services in some capacity.

"4. **Committee on Education:** Working under the handicap of large and increasing numbers of physicians being called to the colors and those remaining at home being busier than they have in years this committee has carried on its functions capably and efficiently. Plans for this Fall call for postgraduate meetings in regions where such instruction is expressly needed, namely, in localities distant from medical centers.

"5. **Bureau of Public Education:** This Bureau, despite war adjustments, has continued as it has in the past to render constantly improved, accurate and reliable information about medical subjects, to the people of Ohio and the medical profession. More pieces of copy were furnished to the press. Exhibits and posters were freely utilized. Feature articles were supplied to societies for their local papers to print. Speaker services have been improved and loan packets made available consisting of statistical data. The Bureau has acted as a clearing for questions and requests. Your committee wishes to praise the director for his success in expanding the ramifications of this essential phase of organized medicine.

"6. **Judicial and Professional Relations:** No disciplinary action was taken during the past year. Local societies contemplating changes in their constitutions and by-laws are advised to consult with the committee and keep their constitutions and by-laws as plain and simple as possible, thus avoiding voluminous detail and confusion."

REPORT OF COMMITTEE ON RESOLUTIONS

Carl A. Lincke, Carrollton, the chairman, reported for the Reference Committee on Resolutions as follows:

"The Reference Committee on Resolutions has carefully considered the four resolutions presented at Tuesday's session of the House of Delegates. The committee herewith returns the resolutions to the House of Delegates with recommendations as follows:

Resolution A

Resolution A, presented by John E. Rauschkolb, Cuyahoga County, reads:

"WHEREAS, It has been reported that the Social Security Board intends to recommend to The Congress that the Social Security Act be amended to provide hospitalization benefits, in cash or in service, to all insured under the Social Scurity Act and to provide for additional payroll deductions for the purpose of financing such benefits, and,

"WHEREAS, This proposed expansion of the Social Security System must be considered as a part of a movement toward complete plans for compulsory sickness insurance and the socialization of all professions and businesses, which principle has been consistently opposed by the medical profession of Ohio for the reason that it would lead inevitably to a lowering of the standards of medical care, and,

"WHEREAS, An amendment of this character would virtually destroy existing prepayment voluntary plans which provide hospitalization or medical services to those who subscribe to such plans and would eliminate any incentive for the orderly development of additional sound voluntary plans under the direction of hospital and medical organizations, therefore

"BE IT RESOLVED,. That the Ohio State Medical Association, in session April 28, 29 and 30, 1942, go on record as being unalterably opposed to any proposal for compulsory insurance of hospitalization or medical services."

"Your committee heartily endorses this resolution and **recommends its adoption.**

Resolution B

"This resolution was presented by Gordon G. Nelson, Mahoning County, on behalf of the Council of the Mahoning County Medical Society which adopted the resolution on April 24, 1942. The resolution reads as follows:

"WHEREAS, Many specialists in medicine in the military service are not now performing the kind of medical service for which they are trained and qualified; and

"WHEREAS, We believe this to be an inefficient and wasteful use of trained personnel; therefore

"BE IT RESOLVED, That the Ohio State Medical Association, through the House of Delegates, in annual session held April 28, 1942, be instructed that this Association go on record as urging the Procurement and Assignment Service to make prompt and vigorous effort to see that these men in our nation's Armed Forces are promptly assigned to the type of work for which they are especially trained and qualified.

"Obviously, your Reference Committee hopes that physicians entering the armed forces as medical officers will be assigned to the type of work for which they are especially qualified. However, your committee also realizes that the Army and Navy are confronted with enormous problems and difficulties in their efforts to place the nation at adequate war strength. Until there is an adequate supply of medical personnel in the Army and Navy, including general practitioners as well as specialists, your committee believes that the War and Navy Departments will be unable to make assignments of medical officers so that each officer can be utilized in his own special field.

"The resolution intimates that the responsibility for the assignment of medical officers rests with the Procurement and Assignment Service. This is not the case. The primary responsibility of the Procurement and Assignment Service is to pass on the question of whether or not a physician can be spared from civilian practice. After a physician has been commissioned, the responsibility for assigning him to work with the Army or Navy lies with the War Department or Navy Department, as the case may be. Therefore, because your committee feels that the Army and Navy sincerely desire to meet this problem of proper assignment of medical officers and because the Procurement and Assignment Service has no jurisdiction on questions of this kind, the committee **recommends that Resolution B be NOT adopted.**"

Resolution C

"Resolution C, another resolution adopted by the Council of the Mahoning County Medical Society and submitted by Gordon G. Nelson of Mahoning County, reads as follows:

"WHEREAS, The present emergency has taken into active military service many of our physicians under the age of 45 years; and

"WHEREAS, In certain rural communities this practice has taken and will take away the only physician within a wide radius of such communities, thereby jeopardizing the health of the people in such areas; and

"WHEREAS, The amount of medical service required in many of these communities is greatly in excess of the capacity of older physicians; therefore

"BE IT RESOLVED, That the Ohio State Medical Association, through the House of Delegates, in annual session held April 28, 1942, be instructed to request the Procurement and Assignment Service to seek the cooperation of local draft boards to the end that the latter shall consult with the local medical societies as to the advisability of continuing physicians in their practice in such rural communities, whose absence would be detrimental to the health of the community.

Your committee is of the opinion that some of the statements made in the resolution are not substantiated by facts. As pointed out in the Supplemental Report presented to the House of Delegates by the Committee on Medical Preparedness, which is serving as the Ohio Committee on Procurement and Assignment for Physicians, special procedures have been inaugurated to protect rural communities against being left with an inadequate supply of physicians. In many instances the Procurement and Assignment Committee has listed as essential certain physicians in communities unable to spare physicians at this time and has advised that such physicians should not be accepted into the Army and Navy at this time.

"Moreover, a cooperative relationship has been established between the Procurement and Assignment Service and the Selective Service System, based on an official communication handed down by the Director of the National Selective Service System. Under the procedure set forth by the Director, Selective Service boards have been urged to obtain information and advice from the Procurement and Assignment Service before classifying physicians subject to military service under the Selective Service Act. So far as the Ohio Procurement and Assignment Committee knows, its advice on matters of this kind has been followed by the local Selective Service boards.

"Your committee believes that physicians confronted with problems arising from registration under the Selective Service Act should consult the Committee on Medical Preparedness of their respective county medical society, which committee may in turn consult the Committee on Medical Preparedness of the Ohio State Medical Association for information and advice. If this is done and the various committees function effectively, the problems of individual physicians can in all probability be worked out satisfactorily inasmuch as basic procedure for handling such cases has been established, as pointed out in the foregoing paragraphs.

"Therefore, your Reference Committee believes that the resolution is superfluous and that already adequate methods have been worked out to meet the questions enumerated. For these reasons the committee **recommends that the resolution should NOT be adopted.**"

Resolution D

"Resolution D was introduced by **Dr. F. A. LeFevre**, Cuyahoga County. It reads as follows:

"WHEREAS, The task of filling out forms for insurance companies is becoming an increasing burden on the medical profession, and

"WHEREAS, Many of these forms are not essential to the immediate care of the sick public, and

"WHEREAS, The insurance companies or their clients are the immediate beneficiaries of the services rendered by the medical profession in filling out such blanks,

"BE IT HEREBY RESOLVED, That the Council of the Ohio State Medical Association be instructed by the House of Delegates to draft a standard short form for use of its members in answering inquiries by insurance companies, and further

"BE IT RESOLVED, That the Ohio State Medical Association seek to secure the adoption of such blank by insurance companies in lieu of present forms.

"Your Reference Committee is in accord with the requests made in this resolution and **recommends its adoption.**

"On **motion** by Dr. Lincke, seconded by Guy E. Noble, St. Marys, and **carried**, the recommendations of the Reference Committee on Resolutions on the four resolutions were **adopted.**"

ELECTION OF PRESIDENT-ELECT

At this point President Paryzek called for nominations for the office of President-Elect. L. L. Bigelow, Columbus, was recognized and placed in nomination the name of **C. C. Sherburne**, Columbus, a member of The Council representing the Tenth Councilor District. The nomination was seconded by D. W. Hogue, Springfield. There being no further nominations, on **motion** by A. A. Brindley, Toledo, seconded by J. Craig Bowman, Upper Sandusky, and **carried**, the nominations were closed and the Executive Secretary was instructed to cast the unanimous ballot of the House of Delegates for Dr. Sherburne for the office of President-Elect. President Paryzek then **declared Dr. Sherburne duly elected** as President-Elect and requested Dr. Bigelow to escort Dr. Sherburne to the rostrum. Dr. Sherburne was presented to the House of Delegates and in a brief talk assured the House of Delegates that he would do everything within his power to carry on the splendid work initiated by his predecessors and to further the progressive activities of the Association.

ELECTION OF COUNCILORS

Reporting for the Committee on Nominations, Emil R. Swepston, Cincinnati, the chairman, submitted the following nominations for the office of Councilor of the following Councilor Districts:

First District—As Councilor of the First District, **L. Howard Schriver,** Cincinnati, to succeed himself.

Third District—As Councilor of the Third District, **Guy E. Noble,** St. Marys, to succeed himself.

Fifth District—As Councilor of the Fifth District, **Edgar P. McNamee,** Cleveland, to succeed himself.

Seventh District—As Councilor of the Seventh District, **Carl A. Lincke,** Carrollton, to succeed Carl A. Goehring, Steubenville, who had requested that his name not be placed in nomination for the office of Councilor of that District.

Ninth District—A Councilor of the Ninth District, **G. R. Micklewaite**, Portsmouth, to succeed I. P. Seiler of Piketon.

In submitting the name of Dr. Micklethwaite to succeed I. P. Seiler of Piketon, the committee made the following comments:

"Dr. Seiler has served as a member of The Council of the Ohio State Medical Association continuously for 20 years. Under the provisions of Chap. 7, Sec. 1 of the By-Laws of the Ohio State Medical Association, as amended at the 1936 session of the House of Delegates, 'no Councilor shall serve in such capacity for more than three consecutive terms'. For this reason the name of Dr. Seiler cannot be presented to this House of Delegates for renomination inasmuch as he must retire automatically in compliance with the foregoing provision. Although it may not be within the province of this committee, the committee believes that the sincere appreciation of the Ohio State Medical Association should be extended to Dr. Seiler for his long and faithful services in the office as Councilor of the Ninth District."

Eleventh District—As the Councilor of the Eleventh District, **Ross M. Knoble**, Sandusky, to succeed S. V. Burley, Lorain.

There being no further nominations from the floor for these offices, the nominations were closed on **motion** by J. R. Jarvis, Van Wert, seconded by John L. Jones, Medina, and **carried,** and the Executive Secretary was instructed to cast the ballot of the House of Delegates for the foregoing nominees. This being done, President Paryzek officially **declared them duly elected** to the office of Councilor of the State Association for a term of two years.

President Paryzek pointed out to the House of Delegates a vacancy in the office of Councilor for the Tenth District due to the election of Dr. Sherburne as President-Elect. He called for nominations for that office. John M. Thomas, Columbus, nominated **H. M. Clodfelter,** Columbus, and the nomination was seconded by E. F. Kieger, Cleveland. There being no further nominations, on **motion** by A. A. Brindley, Toledo, seconded by Edgar P. McNamee, Cleveland, and **carried,** the nominations were closed and the Executive Secretary was instructed to cast the ballot of the House of Delegates for Dr. Clodfelter. This was done and President Paryzek officially **declared Dr. Clodfelter duly elected** a member of The Council representing the Tenth District for the unexpired term of one year.

ELECTION OF A.M.A. DELEGATES AND ALTERNATES

Dr. Swepston, on behalf of the Committee on Nominations, presented the following nominees for the positions of delegate and alternate to the American Medical Association to serve for the years 1942 and 1943:

Delegate—George A. Woodhouse, Pleasant Hill, to succeed Ben R. McClellan, Xenia, who retired after more than a quarter of a century of meritorious service in the House of Delegates of the A.M.A.

Alternate—R. S. Binkley, Dayton, to succeed George A. Woodhouse.

Delegate—John B. Alcorn, Columbus, to succeed himself.

Alternate—H. M. Platter, Columbus, to succeed R. R. Hendershott, Tiffin.

Delegate—Harry V. Paryzek, Cleveland, to succeed E. R. Brush, Zanesville, deceased.

Alternate—Charles R. Meek, Lorain, to succeed Carl Goehring, Steubenville.

Delegate—**Carl R. Steinke**, Akron, to succeed himself.

Alternate—**D. J. Slosser**, Defiance, to succeed C. C. Sherburne, Columbus.

At this point Dr. Paryzek requested V. C. Rowland, Cleveland, to take the chair. There being no further nominations from the floor, on **motion** by A. A. Brindley, Toledo, seconded by L. Howard Schriver, Cincinnati, and **carried**, the nominations were closed and the Executive Secretary was instructed to cast the ballot of the House of Delegates for the foregoing nominees. This being done, Dr. Rowland **declared the foregoing duly elected delegates and alternates to the American Medical Association.**

INSTALLATION OF NEW PRESIDENT

At this point President Paryzek expressed appreciation of the House of Delegates and the membership, generally, for the fine cooperation which he had received during the past year, and he then presented Edward J. McCormick, Toledo, the President-Elect, and installed him as President for the ensuing year. In accepting the official gavel, Dr. McCormick assured the House of Delegates that he would devote a maximum amount of time and effort to the duties of the office of President and that he would do everything possible to keep the Ohio State Medical Association as a dynamic organization to protect the public, as well as the medical profession, during the confused and uncertain period which lies ahead.

APPOINTMENT OF COMMITTEES

President McCormick then announced the appointment of the following committee members, which appointments, on **motion** by Edgar P. McNamee, Cleveland, seconded by E. F. Kieger, Cleveland, and **carried**, were **officially confirmed** by the House of Delegates:

Committee on Public Relations and Economics—**Ralph M. Watkins**, Cleveland, reappointed for a five-year term. **Chairman** for the ensuing year—**Barney J. Hein**, Toledo.

Committee on Education—**Carl A. Wilzbach**, Cincinnati, reappointed for a term of five years. **Chairman** for the ensuing year—**Clyde L. Cummer**, Cleveland.

Judicial and Professional Relations Committee—**G. A. Woodhouse**, Pleasant Hill, reappointed for a term of five years. **Chairman** for the ensuing year—**James G. Kramer**, Akron.

Committee on Scientific Work—**Louis G. Herrmann**, Cincinnati, appointed for a five-year term. **Chairman** for the ensuing year—**Charles A. Doan**, Columbus.

MISCELLANEOUS AND NEW BUSINESS

The President recognized Dr. Schriver of Cincinnati who presented a **motion** officially expressing the appreciation of the House of Delegates to I. P. Seiler, Piketon, for his many years of conscientious and active service as a member of The Council of the Association, and to Ben R. McClellan, Xenia, retiring as delegate to the American Medical Association, for his efficient and loyal service in that capacity for more than a quarter of a century. The motion was seconded by D. W. Hogue, Springfield, and **unanimously carried.**

On **motion** by John E. Rauschkolb, Cleveland, seconded by G. W. Flory, Eaton, and **carried**, the House of Delegates complimented the Committee on Scientific Work for the excellent program which had been arranged for this year's Annual Meeting and thanked the committee for its efficient work.

Dr. Paryzek offered a **motion** thanking the Columbus Academy of Medicine, the Neil House, and Columbus newspapers and radio stations for their fine cooperation with the Association and in helping to make this Annual Meeting one of the most successful in the history of the Association. The motion was seconded by P. G. Moore, Cleveland, and **unanimously adopted** by the House of Delegates.

There being no further business, the House of Delegates adjourned sine die.

Attest: CHARLES S. NELSON,
Executive Secretary.

House of Delegates Roll Call
96th Annual Meeting

County	Delegate	First Session	Second Session
Adams	S. J. Ellison	present	present
Allen	J. R. Tillotson	present	present
Ashland	M. D. Shilling	present	present
Ashtabula	P. J. Collander	present	present
Athens	Byron Danford	———	present
Auglaize	Chas. C. Berlin	present	present
Belmont	James O. Howells	———	———
Brown	R. B. Hannah	———	———
Butler	Chas. T. Atkinson	present	present
Carroll	Carl A. Lincke	present	present
Champaign	D. C. Houser	present	present
Clark	G. M. Lane	present	present
Clermont	Warren E. Thomas	———	———
Clinton	Robert Conard	present	present
Columbiana	John A. Fraser	present	present
Coshocton	A. P. Magness	———	———
Crawford	C. A. Marquart	present	present
Cuyahoga	F. A. LeFevre	present	present
"	J. E. Tuckerman	present	present
"	John A. Toomey	present	———
"	E. F. Kieger	present	present
"	H. J. Knapp	———	present
"	M. F. Oman	present	present
"	John E. Rauschkolb	present	present
"	M. Paul Motto	present	———
"	L. F. Huffman	present	———
"	O. B. Pomeroy	present	present
"	Chas. S. Stone	present	present
"	P. G. Moore	present	present
"	D. S. Spreng	present	present
"	H. J. Leslie	present	present
"	Ralph M. Watkins	———	present
"	V. C. Rowland	———	present
Darke	C. I. Stephen	———	———
Defiance	D. J. Slosser	present	present
Delaware	W. E. Borden	———	———
Erie	Ross M. Knoble	present	present
Fairfield	Chas B. Crow	present	present
Fayette	J. H. Persinger	present	present

County	Delegate	First Session	Second Session
Franklin	Charles W. Pavey	present	present
"	Edwin J. Stedem	present	present
"	John M. Thomas	present	present
"	I. B. Harris	present	present
"	Leslie L. Bigelow	present	present
"	Russel G. Means	present	present
Fulton	T. F. Smyth	present	—
"	C. Harold Heffron	—	present
Gallia	Francis W Shane	—	—
Geauga	W. A. Reed	—	present
Greene	H. C. Messenger	present	—
Guernsey	Fred W. Lane	present	present
Hamilton	Emil R. Swepston	present	present
"	Wm. J. Topmoeller	present	present
"	Max M. Zinninger	present	present
"	Charles J. McDevitt	—	present
"	E. O. Swartz	present	present
"	Howard D. Fabing	present	—
"	D. W. Heusinkveld	present	—
"	R. C. Rothenberg.	present	present
Hancock	Frank M. Wiseley	present	present
Hardin	Don R. Printz	present	present
Harrison	E. L. Miller	present	present
Henry	J. J. Harrison	—	—
Highland	J. H. Frame	present	present
Hocking	M. H. Cherrington	—	present
Holmes	Luther High	present	present
Huron	C. B. Thomas	—	—
Jackson	M. R. Wedemeyer	—	present
Jefferson	S. A. Harris	present	present
Knox	E. V. Ackerman	—	present
Lake	V. N. Marsh	—	—
Lawrence	George G. Hunter	—	present
Licking	George A. Gressle	present	present
Logan	F. Blair Webster	present	—
Lorain	Charles R. Meek	present	present
"	Waite Adair	present	present
Lucas	F. N. Nagel	present	present
"	L. D. Miller	present	present
"	W. W. Green	present	present
"	F. P. Osgood	present	present
Madison	J. A. Knapp	present	—
Mahoning	J. N. McCann	present	present
"	Edward J Reilly	present	present
"	Gordon G. Nelson	present	present
Marion	H. K. Mouser	present	present
Medina	John L. Jones	present	present
Meigs	—	—	—
Mercer	Ralph J. Beare	—	—
Miami	G. A. Woodhouse	present	present
Monroe	A. R. Burkhart	—	—
Montgomery	C. J. Derby	present	—
"	A. W. Carley	present	present
"	R. S. Binkley	present	present
"	R. D. Dooley	present	present
Morgan	C. E. Northrup	present	—
Morrow	Wm. Lowell Murphy	—	—
Muskingum	M. A. Loebell	present	present
Noble	—	—	—
Ottawa	F. E. Miller	present	present
Paulding	L. R. Fast	present	present
Perry	James Miller	—	present
Pickaway	George W. Heffner	present	present
Pike	Robt. M. Andre	present	—
Portage	Edward T. Meacham	present	present
Preble	G. W. Flory	present	present
Putnam	E. Blackburn	present	present
Richland	John S. Hattery	present	present
Ross	O. P. Tatman	—	present
Sandusky	J. C. Boyce	present	present
Scioto	G. R. Mickelthwaite	present	present
Seneca	R. R. Hendershott	present	present
Shelby	Harry E. Crimm	present	—
Stark	A. R. Basinger	—	present
"	J. Edwin Purdy	—	present
"	Clair B. King	—	present
Summit	Robt. T. Allison, Jr.	present	present
"	Carl R. Steinke	present	present
"	R. M. Lemmon	present	present
"	R. E. Pinkerton	present	present
Trumbull	R. D. Herlinger	present	present
Tuscarawas	J. W. Calhoon	present	present
Union	John D. Boylan	present	present
Van Wert	J. R. Jarvis	present	present
Vinton	H. F. Kesinger	—	present
Warren	N. A. Hamilton	present	—
Washington	W. E. Radcliff	present	present
Wayne	R. C. Paul	present	present
Williams	H. W. Wertz	present	present
Wood	Paul F. Orr	—	present
Wyandot	J. Craig Bowman	present	present

OFFICERS

President	Harry V. Paryzek	present	present
President-Elect	E. J. McCormick	present	present
Past-President	William M. Skipp	present	present
Treasurer	James A. Beer	present	present

COUNCILORS

First District	L. Howard Schriver	present	present
Second District	D. W. Hogue	present	present
Third District	Guy E. Noble	present	present
Fourth District	A. A. Brindley	present	present
Fifth District	Edgar P. McNamee	present	present
Sixth District	Ralph L. Rutledge	present	present
Seventh District	Carl Goehring	present	present
Eighth District	George F. Swan	present	present
Ninth District	I. P. Seiler	present	present
Tenth District	C. C. Sherburne	present	present
Eleventh District	S. V. Burley	present	present
Totals		112	116

Medical Graduates To Be Honored At Cincinnati Alumni Banquet

Seventy-seven graduates of the College of Medicine, University of Cincinnati, will be the guests at a banquet of the Alumni Association on June 4.

Dr. Daniel C. Rivers, Cincinnati, president of the Alumni Association, reports that an innovation this year will be a joint meeting with the Cincinnati Academy of Medicine. Dr. John Skavlem, president of the Academy of Medicine, is urging all members to be present as a tribute to the class of graduating doctors who will enter the service of the nation upon graduation.

The principal speaker will be Dr. A. Ashley Weech, of the College of Physicians and Surgeons, Columbia University, and newly-appointed professor of pediatrics at the College of Medicine, University of Cincinnati. His topic will be "War and Beyond the War, A Promise to Men of Medical Science". Dean Stanley Dorst will give his parting injunctions and induct the class into the Alumni Association. The Glee Club of the University of Cincinnati will sing several numbers. All graduates are promised a hearty welcome and urged to attend.

New Schedule for State Offices

As part of a general plan to ease transportation congestion in the Columbus district, a new schedule of staggered work hours for state employes, effective May 13, has been announced by Governor John W. Bricker.

Included were the following departments in which physicians may be interested:

State Medical Board—8:30 A. M. to 5 P. M.

Department of Health—8 A. M. to 4:30 P. M.

Industrial Commission—8:15 A. M. to 4:45 P. M.

Department of Public Welfare—8:15 A. M. to 4:45 P. M.

All departments will be open on Saturday until 12 noon.

Annual Address of the President

By HARRY V. PARYZEK, M.D., CLEVELAND, OHIO

IN accordance with a long established precedent, it is my privilege as your President to review pertinent facts relating to the activities of your Association. We can be justly proud of our Association which has, at all times, functioned with thoroughness and efficiency, and it is with a deep sense of satisfaction that I present the activities of the various committees which have functioned throughout the year studying problems which are of vital importance to all physicians practicing within the State of Ohio. Time does not permit a complete review of all the work done during the past year and I shall, therefore, confine my remarks to some of the more important activities. We must realize that within the past year, serious and profound changes have dislocated our normal way of life and that we are faced with a war whose implications are difficult to evaluate. This has, naturally, added extra responsibilities without curtailing any of the regular activities. Certain changes in our functions will be in order due to the national crisis and I shall, therefore, devote part of my time to a discussion of problems which I believe should receive your thorough consideration during the coming year.

WORK OF PUBLIC RELATIONS COMMITTEE

In reviewing the work of the Association during the past year, I would like to refer to the report of the Committee on Public Relations and Economics. The full report, published in the April issue of *The Journal*, should be studied carefully by all members. This committee, along with its sub-committees, has had a tremendous volume of work during the past year. The members of these committees have willingly devoted much of their valuable time to a careful review and disposition of the many problems confronting them. The Committee on Public Relations and Economics is actually a policy-forming body which acts in an advisory capacity to your Council which, in turn, assumes authority in the interim between sessions of the House of Delegates. Furthermore, this committee maintains most intimate contact with official and unofficial organizations and agencies which have either a direct or indirect interest in medical and health problems.

WORKMEN'S COMPENSATION PROBLEMS

During the past year, several meetings were held by the Sub-Committee on Workmen's Compensation and representatives of the Industrial Commission at which time many annoying problems were carefully considered. By mutual consent, certain changes in procedure have been recommended which will help improve the relationship between the individual practitioner and the Industrial Commission. In passing, I would like to comment favorably upon the fine spirit of cooperation which exists between the representatives of your organization and the Industrial Commission. By such cooperation, we have been able to maintain a pleasant and cordial relationship which has mutually benefited both interested parties. The committee and the personnel of the State Headquarters Office are in constant touch with the Commission and are willing at all times to present your problems before the Commission in order that they may be satisfactorily settled. I would, therefore, urge individual members to feel free in submitting Workmen's Compensation problems to the committee. It is only through the knowledge of your problems that we can attempt to arrive at a satisfactory settlement. In view of the ever-increasing health hazards in modern industry, this committee recommended that the State Association take a more active part in the study of this problem by cooperating with the Council on Industrial Health of the American Medical Association. This is a definite step forward and represents a thorough appreciation of an important problem.

MEDICAL SERVICE PLANS

Following the adoption of a resolution at the last Annual Meeting authorizing your President to appoint a Committee on Medical Service Plans, this committee has made substantial progress. Although no definite medical service plan has been inaugurated in Ohio, this committee devoted much of its time in a careful analysis of the basic principles which are involved in the establishment of a medical service plan. By approaching this problem in a scientific manner and carefully analyzing the various plans already in existence, they compiled a "Handbook on Medical Service Plans" for the benefit of the component county societies, contemplating the intruduction of such a plan in their communities. As more valuable and pertinent information is gathered and analyzed, it will be made available to your societies. It is our belief that this problem is of extreme importance and, therefore, should receive thorough and unprejudiced consideration. A

Annual Address of the President, delivered at the first session of the House of Delegates, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28, 1942.

hasty adoption of any plan without the above mentioned prerequisites would be extremely hazardous.

POOR RELIEF AND MEDICAL CARE

The Committee on Poor Relief, in reviewing the various medical programs for the care of the indigent in the rural counties, found that the problem was apparently handled in most of these areas in a satisfactory fashion. The formula-controlled medical care plan for the needy which has been in operation in Delaware County for the past two years received favorable comment and the committee suggested that this plan be brought to the attention of societies in communities where similar problems exist. This plan apparently helps solve some of the knottier problems relating to poor relief without jeopardizing the mutual relationship between the patient and his attending physician.

TUBERCULOSIS CONTROL STUDY

A study of the problems pertaining to the control of tuberculosis in the State of Ohio has been referred to a special sub-committee with instructions to make a careful study of existing laws and regulations pertaining to the control of tuberculosis and to recommend such changes as are considered necessary. This committee has begun its study and I am confident will, in the near future, suggest changes which will improve the control of this very vital and important public health problem.

COOPERATION WITH HEALTH DEPARTMENT

Through the pleasant relationship which exists between the State Department of Health and its Director, Dr. Markwith, your Association has been privileged to advise as to certain procedures which apply to the efficient management of the State Department of Health. The Committee on Public Relations and Economics, acting as advisor to the State Director of Health at his request, recently approved a set of regulations governing the approval of serological laboratories functioning under the Premarital Examination Law. This type of cooperation will, undoubtedly, help in a large measure to eliminate certain difficulties pertaining to this rather involved situation.

THE COMING LEGISLATIVE SESSION

There was no session of the Ohio Legislature this year but the Committee on Legislation has been assisting the American Medical Association in sponsoring a corrective amendment to the Internal Revenue Act to eliminate an inequity in taxes levied on the estates of professional men. The committee also has kept informed on other Federal legislative proposals and will take action on them when action is deemed advisable.

In November, we shall hold a general election in the state for the purpose of electing various state officials and members of the 95th Ohio General Assembly. Let me, therefore, remind you that we, as a profession, are confronted with some very serious and important responsibilities. It is our duty to carefully analyze the status of all candidates seeking election in order that we may, by concerted effort, eliminate such aspirants who, by fostering laws and regulations which help destroy the freedom and integrity of individual practice, seriously jeopardize the welfare of the public. Your Sub-Committee on Legislation is, at all times, willing to help and advise you as to the candidates, but they cannot consummate their efforts without your wholehearted and conscientious cooperation. The welfare of your profession is in grave danger particularly during these difficult times and it is only through your individual effort and industry that we can be assured of success.

POSTGRADUATE EDUCATION

In spite of a definite cut in the appropriation for postgraduate education, the Committee on Education was of the opinion that the plan of postgraduate instruction should be continued even though it would have to be curtailed. This type of postgraduate instruction has gained in popularity and I believe it has been of great value to the membership. The necessity of limiting lectures to one day and concentrating upon subjects which are of timely importance to the general practitioner has definitely improved this type of instruction and should serve as a model for future committees to consider. The speakers this year carefully prepared their subjects and presented them in an interesting fashion. The arrangements carefully provided by the various local committees have, in a large measure, contributed to the success of these meetings. Such conscientious and efficient service, I confidently believe, is deeply appreciated by all of us and I hope that the incoming administration will make every effort to continue the sponsorship of these programs.

BUREAU OF PUBLIC EDUCATION

Coincident with our efforts in keeping our membership acquainted with the progress made in scientific medicine, we have realized the importance of keeping the public informed as to what advances have been made. The Bureau of Public Education, functioning in a most efficient manner, selected subjects of most interest to the public and released stories which had definite news as well as educational value. Releasing material of such high calibre has established the reputation of the Bureau as a reliable source of information. Educational exhibits, pamphlets, radio broadcasts and a speakers-service are all coordinated in this Bureau in order to carry on with a continuous, dignified and intelligent source of health education, thereby promoting the best interests of the profession.

MEDICAL PROFESSION AND THE WAR

The responsibilities of the Committee on Medical Preparedness have increased tremendously during the past few months and the present involved problem of Procurement and Assignment demands the full responsibility of this committee. This committee is putting forth every effort to discharge its obligation to the profession and the nation in a judicious and courageous manner. Many of their problems are not easily solved and they must frequently call upon the local committees for help and advice. It is gratifying, indeed, to see the wholesome response of the local committees on medical preparedness when called upon to assist in gathering pertinent information. Also a vote of sincere appreciation and commendation is due the several thousand Ohio physicians who have unselfishly contributed their time and services in making physical examinations for the Selective Service System and who, with many other doctors, are devoting much time in organizing medical programs as a part of Civilian Defense. The Committee on Medical Preparedness assumed an active part in advising and assisting the State Council of Defense in the organization of adequate medical-health problems as a part of the local Civilian Defense programs. Important information and suggestions on Civilian Defense activities are sent to local committeemen in order that they may be prepared to assume leadership in medical and health matters which are so intimately involved in the program of Civilian Defense. Complete organization of all medical and public health facilities is an important function of every community and herein lies an excellent opportunity for the medical profession to assume genuine leadership.

THE OHIO STATE MEDICAL JOURNAL

Your officers and Council are fully aware of the importance of keeping the entire membership acquainted with the various functions of the Association through the medium of *The Journal.* Through the zeal and industry of your able Editor and staff, *The Journal* has become an outstanding periodical whose carefully selected scientific articles and comments on important changes in the field of politics and medical economics, tinctured with a bit of history and local gossip, combine to make it an unique compendium of valuable and important information. Since the Fall of 1940, *The Journal* has presented, in a clear and concise manner, complete information pertaining to procedures and functions of the various phases of medical preparedness particularly relative to Procurement and Assignment. This particular presentation received favorable comment on more than one occasion for its well planned and clearly expressed informative style. The regular and careful reading of *The Journal* will, I am certain, convince the most profound skeptic that his Association is actually interested in the problems of the profession and is asserting every effort in the promotion of the best interests of each individual member.

IMPROVEMENTS IN ANNUAL MEETING

You will note, from your program, that the Committee on Scientific Work made definite changes in the type and manner of presentation of the various scientific subjects. These changes, I believe, will please those in attendance because of the timely choice of subjects which have been chosen for the purpose of interesting the majority of our members. The greatest proportion of our members are general practitioners, the actual backbone of our organization, and I believe it is our duty to devote most of the scientific program for their particular benefit in order that they may be well prepared in doing a better job and rendering a genuine service, thereby enhancing the prestige and effectiveness of their profession. Your frank criticism and suggestions, I am sure, will be given careful consideration by future committees since it is their wholesome purpose to be of service to you.

PROBLEMS OF THE FUTURE

We have faced difficult situations during this past year and the problems of the future appear to have a deeper significance involving the professional and personal life of every one of us. It is in a time like this that we must face these problems, both professional and economical, with vision and courage. It behooves us, therefore, to maintain the strength and integrity of our medical organization. Under the guise of "national emergency", it is quite probable that an effort may be made to introduce by law certain radical changes in our social structure which will have a distinct bearing on our present method of practice. I refer particularly to the present effort of changing the Social Security Law with respect to hospitalization. It is only with a unified organization which is ever watchful and prepared to overcome some of these obstacles that we may feel reassured that we can maintain at least a semblance of our former way of life.

If we consider and analyze the attempt which is being made by our Government to overcome the ever-present danger of inflation and at the same time carry on a tremendous war program, we quickly realize that the burden of taxation will become greater and greater. Even though the individual's income may be greater than it has ever been in this country, taxation will eliminate a large portion of it with the result that needed funds during a prolonged illness will not be available and the worker will be potentially indigent. It is essential, therefore, that local societies, particularly in urban areas, devote time to the consideration of the introduction of medical service plans in their communities, in order to preserve insofar as is possible the present standards of medical practice. Personally, I am firmly convinced that our profession must face this problem as soon as possible in order to forestall definite efforts which will be made to federalize the practice of medicine. I further believe that we, as a profession, have the ability, foresight and courage to evolve a plan of medical service which will fit the need of the public and at the same time cause little dislocation in our type of practice. By introducing medical service plans, which are based on definite fundamental principles, we are voicing a practical and concrete objection to any form of federalized or socialized medicine. By merely voicing a strong objection to any socialized plan, we are actually adopting the characteristics of the ostrich and hiding our heads in the sand. Now is the time for our profession to assume definite leadership and present to the public a solution of a problem which in the minds of the bureaucrat seems to be readily answered by a mere increase in taxation. We have a noble heritage backed by consistent, scientific advancement in the treatment of disease, which has been accomplished in a free country that, at the present moment, still respects private enterprise and individual initiative. I am reasonably certain that if organized medicine avoids personal, selfish, interests and recognizes the problems which arise as a result of our present economic revolution, we can arrive at a satisfactory solution. This cannot be done over night but requires the thorough and unselfish devotion of the leaders in medicine to a study of this problem. To assume a defeatist attitude at the present moment would, indeed, be fatal. By being ultra-conservative, we may lose all the benefits we have acquired in the past.

NEED FOR MEDICAL SERVICE PLANS

No experiment can be condemned without a thorough trial. The Enabling Legislation which became effective in August, 1941, entirely through the efforts of your organization, has within it certain provisions which definitely protect the interests of the profession and the public as well. My long period of service in organized medicine prompts me to the conclusion that changes are necessary in the practice of medicine. Our social and economic advancement has been more or less static and failed to keep pace with the rapid advance in science and medicine. All is not lost, and I am still able to view this changing picture, with a certain degree of optimism. Your leaders in the organization shall not betray your confidence nor the confidence of those who are in the service of their country. May I assure you that no plan will be recommended unless it is based on sound facts and substantial principles which thoroughly respect the rights and privileges of all parties concerned. I would, therefore, recommend that the incoming administration continue their efforts in studying a satisfactory and practical method of approach to the formulation of a medical service plan in order that they may help and advise their constituent societies in the adoption of such a plan.

FREE PROFESSION MUST CONTINUE

Involved, as we are, in a total war, waged primarily for the purpose of preserving our very freedom, we must give serious consideration to the importance of our freedom and independence. As independent men, who are more or less individualists, we have had a tendency to become complacent and rather expect the right of freedom and liberty. International bandits are making every effort to annul these liberties we have enjoyed and are making a distinct effort to subjugate all who do not conform to their type of philosophy. I believe, that we, as a profession, realize the importance of the issue at stake and consequently shall not be found lacking in the spirit of a will to do what is best for our country. Situations may arise when it may seem that our independence will be curtailed, but this must be accepted gracefully. In an all-out war, we must make great sacrifices and forego certain liberties, since a demand upon the entire man-power, industry and agriculture, is the most efficient way to get the full benefit of our efforts in winning the war and establishing a lasting peace. I hope that all of you will give serious consideration to the present chaotic situation and willingly offer to play your part in this stupendous undertaking.

APPEAL TO YOUNGER MEMBERS

I am making a special appeal to the younger members of our profession in urging them to give serious thought to their immediate obligations. Let the record of the men who have gone before them be a model of true sacrifice and devotion to one's country. As physicians, we have an enviable record and we have never evaded our duty in time of strife and trouble. I am confident, therefore, that during this dark hour, we shall reveal a true spirit and wholeheartedly give all we have for the purpose of defending ourselves against aggression.

You have, no doubt, received your Procurement and Assignment blank and I urge those of you who have not already complied with the wishes of the Government, to attend to this matter immediately. The Procurement and Assignment Service is a very essential function of the Government and will, if properly administered, make the distribution of medical personnel satisfactory and just. It is also essential that each and every practicing physician, regardless of age or physical impairment, send in his Procurement blank as soon as possible. This also applies to those who are in Service or who are contemplating entering Service. It is only with a complete survey of all available medical man-power that the various committees functioning under Procurement and Assignment are able to make an equitable distribution.

RESPONSIBILITIES OF OLDER MEN

The serious drain upon our profession will place an added burden on those who, because of age or infirmities, must remain at home to carry on, and serve their communities. This obligation, I am sure will be willingly accepted. Confident as I am of the inherent character and fibre of my profession, I know we shall accept the challenge with courage and equanimity.

In closing, I would like to take this opportunity to express my most sincere appreciation to all the members of The Council, my numerous committees and the Staff in the Executive Office. Their cooperation and devotion to their duties have been a source of great satisfaction to me. For their loyal support, I am deeply grateful. It has been a pleasure and a privilege to serve as your chief executive and I am not unmindful of the honor bestowed upon me. I trust that I have, in a small measure, contributed something to the advancement and prestige of my profession, whose interests I have always zealously guarded and defended.

Fine Program Arranged for Conference on Conservation, Nutrition and Human Health, June 27-28.

With the theme, "Our Health Depends Upon Our Soil," a conference on Conservation, Nutrition and Human Health will be presented Saturday and Sunday, June 27-28, as a featured event of the 1942 session of the Conservation Laboratory of the State Department of Education. Cosponsors are the Division of Conservation and Natural Resources of Ohio and the Ohio State University. The Laboratory is located at Tar Hollow Camp in the Ross-Hocking State Forest, approximately 18 miles east of Chillicothe.

The program, arranged by Dr. Jonathan Forman, follows:

Saturday afternoon, June 27—1:30, "Water, The Life Blood of Ohio," Dr. Wilbur Stout, State Geologist; 2:00, "The Nutrient Quality of the Soil," Dr. W. A. Albrecht, chairman, Department of Soils, University of Missouri; 3:00, "Nutrition Quality of Plants and Its Relation to Soil and Animals," Dr. Kenneth C. Beeson, Nutrition Laboratory, U. S. Department of Agriculture; 4:30, "Influence of Ohio's Climate Upon Plant Life," Dr. Paul B. Sears, Oberlin College and chairman, State Conservation Education Committee.

Saturday evening, June 27—8:00, "'Hidden Hunger' in Animals," Dr. Albrecht; 9:00, "The Land," and other films; 9:30, Discussion Period.

Sunday Morning, June 28—8:30, "Influence of Ohio's Climate on Human Health," Dr. Clarence A. Mills, professor of experimental medicine, University of Cincinnati College of Medicine; 9:30, "How to Rebuild Ohio's Acres," Dr. D. R. Dodd, agronomist, Ohio State University; 10:00, "A Trip Around the Nature Trail," Arthur R. Harper, leader; 11:00, Presentation of other features of the laboratory by staff members.

Sunday afternoon, June 28—1:45, "'Hidden' Hunger in Man," Dr. Jonathan Forman, Editor, *The Ohio State Medical Journal;* 2:45, "Looking to the Future of Ohio in Our National Economy," Dr. C. Langdon White, Department of Geography, Western Reserve University; 3:15, "A Brief Summary of the Conference and a Statement of the Conservation Objectives for Ohio," Dr. Sears; 3:30, "Putting Health and Prosperity Into Ohio Through Its Soil," a roundtable discussion directed by the Friends of the Land, of which Dr. Charles E. Holzer, Gallipolis, is president and Bryce Browning, New Philadelphia is executive secretary.

All persons interested are cordially invited to this conference. The sponsors believe that this is the first nutrition conference where experts have been called in to discuss the subject from the "ground up," instead of the usual nutrition conference which limits its counsel to the selection, purchase and preparation of foods. Reservations must be made in advance, as sleeping accommodations are limited. Meals and lodging will be furnished for $1.50 per day. Persons attending must bring their own blankets and pillows. Overflow attendance may stay at Chillicothe hotels. Reservations should be addressed to the Director of the Conference, O. E. Fink, Department of Education, State Office Building, Columbus. After June 16 he may be reached at the Conservation Laboratory, Laurelville.

Two Laboratories Approved

The State Department of Health has officially approved the laboratory of the Springfield City Hospital and the Frederick C. Smith Clinic Laboratory, Marion, for the performance of premarital blood tests, effective April 22. Both laboratories are in charge of Dr. Emmerich von Haam. Dr. Benjamin S. Kline is now the physician in charge of the laboratory of the Mount Sinai Hospital, Cleveland, replacing Dr. Anna M. Young, the department has announced.

Proceedings of The Council

Important Business Transacted at Two Meetings Held During 96th Annual Meeting, Columbus; Special Committees Named

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Monday evening, April 27, 1942, the evening preceding the 96th Annual Meeting, in the Red Room of the Neil House, Columbus, following a dinner at which Past-Presidents, Chairmen of State Association Committees, and Chairmen of Columbus Committees on Arrangements for the 96th Annual Meeting were guests. All members of The Council were present.

Upon **motion** by Dr. McNamee, seconded by Dr. Seiler and **carried**, the minutes of The Council meeting of March 8, 1942, were **approved.**

Membership statistics were reported by the Executive Secretary as follows: Membership as of April 27, 1942, 6,405 (including 415 in military service), compared to 5,996 as of April 27, 1941, and to 6,604 as of December 31, 1942 (including 278 in military service).

Members of The Council reported on visits to and activities in various societies in their respective districts.

On **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**, The Council **approved** and ordered filed the Annual Audit and Financial Report for the calendar year 1941, prepared by Keller, Kirschner, Martin and Clinger, Columbus, certified public accountants.

ANNUAL MEETING ARRANGEMENTS

On behalf of Dr. M. M. Zinninger, Cincinnati, chairman of the Committee on Scientific Work, the Executive Secretary made a final report on the program for the 96th Annual Meeting, scheduled to open on Tuesday, April 28. Dr. J. W. Wilce, Columbus, general chairman of the Columbus Committees on Arrangements, and Dr. Harry E. LeFever, president of the Columbus Academy of Medicine, made brief reports on local arrangements.

NATIONAL PHYSICIANS COMMITTEE

President Paryzek submitted for the information of The Council data regarding the National Physicians Committee for the Extension of Medical Service. At the March 8, 1942, meeting of The Council, The Council had authorized President Paryzek to write to officials of the American Medical Association and officials of the National Physicians Committee requesting specific information regarding the activities of that committee and its organization set-up. Replies to Dr. Paryzek's letters were read to The Council. Following a discussion, on **motion** by Dr. Schriver, seconded by Dr. Seiler and **carried**, the correspondence was ordered filed for reference.

REPORT ON WELFARE CONFERENCE

Dr. H. M. Clodfelter, Columbus, officially representing the Ohio State Medical Association at the Ohio Welfare Conference, presented a report on his activities as chairman of the Health Section of that organization. Dr. Clodfelter, in his report, emphasized that as a result of his relationship with those engaged in organized social and welfare activities, he deemed it highly essential that every physician take an active interest in social and civic enterprises. He urged that medical societies make information available to social-welfare groups and lay down definite policies to govern programs having a medical or health angle. Dr. Clodfelter said he had observed that many social workers feel that the medical profession is not trying to meet the social problems involving health and that, in his opinion, this situation must be promptly corrected. He pointed out that as a result of his relationship with the Ohio Welfare Conference, he had been able to provide that organization with important information and to acquaint it with some of the existing policies of the medical profession on social-welfare programs resulting, he declared, in a better understanding on the part of welfare workers of the attitude of the profession on questions of mutual interest.

On **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried**, The Council expressed appreciation to Dr. Clodfelter for his excellent work and ordered that copies of his report be distributed to members of The Council for their information.

PROCUREMENT AND ASSIGNMENT

Dr. Robert Conard, Wilmington, chairman of the Committee on Medical Preparedness of the Ohio State Medical Association and chairman of the Ohio Procurement and Assignment Committee for Physicians, presented a brief report on the activities of those two committees. He spoke specifically of a recent conference at Washington of State Procurement and Assignment chairmen and discussed briefly the new plan for decentralizing the procedure for commissioning medical officers.

MISCELLANEOUS BUSINESS

On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, The Council authorized the prorating of State Association dues for new members for the third and fourth quarters of the year as follows: $5.00 per capita for new members for the period July 1 to September 30, inclusive; $3.00 per capita for the period October 1 to December 31, inclusive.

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The question of interpretation of the resolution authorizing waiver of dues or rebating of dues for those entering military service was discussed by The Council. On **motion** by Dr. Schriver, seconded by Dr. Brindley and **carried**, The President was authorized to appoint a committee to study the question and report at the next meeting of The Council.

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A report from Dr. Sam Rosenfeld, Jr., Columbus, who had officially represented the Ohio State Medical Association at a called meeting of the United States Pharmacopoeia Convention in Cleveland on April 7, was received.

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A communication from Dr. Robert G. Paterson, executive secretary of the Ohio Public Health Association, requesting the Ohio State Medical Association to be a co-sponsor of a proposed Second Annual Ohio Institute on Public Health, was read and discussed. On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried**, The Council instructed the Executive Secretary to inform Dr. Paterson that the Headquarters Office would offer as much assistance as it could in formulating the program for the institute by offering suggestions as to speakers and subjects, but that the Association would be unable to take an active part in co-sponsoring the proposed institute for the following reasons: (1) The Association has just completed its 96th Annual Meeting which entailed an enormous amount of detail work for the Committee on Scientific Work and the Headquarters Office; (2) there are so many details pending now as a result of the Annual Meeting that it will be impossible for the proper committee and the personnel of the Headquarters Office to devote as much time to the proposed institute as the job would merit; (3) at this time the Headquarters Office is devoting almost three-fourths of its time and efforts to the job of obtaining medical personnel for the Army and Navy and handling other activities growing out of the war.

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The question of joining with other organizations in studying the present laws and regulations regarding the control of tuberculosis was considered. On **motion** by Dr. Sherburne, seconded by Dr. Schriver and **carried**, it was the sense of The Council that the present Special Tuberculosis Committee of the Association should continue its study and activities independently.

A communication from Mr. L. S. Kleinschmidt, chairman of a Sub-Committee on Rural Health of the Midwest Regional Committee on Post-War Programs of the U. S. Department of Agriculture, was read. The communication requested the Ohio State Medical Association to nominate a representative of the medical profession of Ohio to serve as a member of the sub-committee. A communication from Mr. H. C. Ramsower, director, Extension Service, College of Agriculture, Ohio State University, and chairman of the Ohio Land-Use Planning Committee, requesting the Association to name a representative on a special Committee on Rural Health which has been established by his committee, also was considered. On **motion** by Dr. Schriver, seconded by Dr. Rutledge and **carried**, the President was authorized to appoint representatives for these two sub-committees or to appoint one physician to serve on both committees.

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A resolution congratulating Dr. L. L. Bigelow, a former President of the Association, on his appointment as Dean of the College of Medicine, Ohio State University, and assuring him of the active cooperation and assistance of the Association was presented by Dr. Schriver. The resolution was seconded by Dr. McCormick and **unanimously passed.**

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On **motion** by Dr. Skipp, seconded by Dr. McNamee and **carried,** The Council by a rising vote expressed sincere appreciation to Dr. I. P. Seiler for his 20 years of continuous active and loyal service as a member of The Council. Under provisions of the Constitution and By-Laws designating that members of The Council shall not be permitted to serve more than six consecutive years, Dr. Seiler will retire as a member of The Council at the final session of the House of Delegates of the 96th Annual Meeting, scheduled for Wednesday, April 29.

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The Council, by **adopting** a **motion** made by Dr. McNamee and seconded by Dr. Hogue, expressed to the Columbus Academy of Medicine appreciation for the splendid arrangements which had been made for the Annual Meeting to open on the following day, and especially for the Complimentary Smoker planned for Tuesday evening, April 28.

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Final action of The Council at its meeting was the **adoption** of a resolution, offered by Dr. Sherburne and seconded by Dr. Hogue, complimenting Dr. Paryzek on his presidency and expressing to him the sincere appreciation of The Council on behalf of the membership of the Association. The resolution instructed the Executive Secretary to have flowers sent to Mrs. Paryzek and to Mrs. McCormick, wife of Dr. McCormick, the Incoming President, with the compliments of the Association.

The Council then recessed to meet on Tuesday morning, April 28, with the House of Delegates.

Attest: CHARLES S. NELSON,
Executive Secretary.

Special Council Meeting

A special meeting of The Council of the Ohio State Medical Association was held on Wednesday afternoon, April 29, 1942, in the Century Room, Neil House, immediately following the final session of the House of Delegates.

The principal business transacted was the appointment of the following special committees by Dr. McCormick, the President, and confirmation of such appointments by The Council, on **motion** by Dr. Hogue, seconded by Dr. Beer, and **carried:**

Auditing and Appropriations—Dr. Edgar P. McNamee, Cleveland, chairman; Dr. L. Howard Schriver, Cincinnati; Dr. Ralph L. Rutledge, Alliance.

Woman's Auxiliary Advisory Committee—Dr. Ralph L. Rutledge, Alliance, chairman; Dr. A. A. Brindley, Toledo; Dr. H. M. Clodfelter, Columbus.

Medical Preparedness Committee—Dr. Robert Conard, Wilmington, chairman; Drs. Charles E. Hauser, Cincinnati; Merrill D. Prugh, Dayton; Roland H. Good, Van Wert; Dale Wilson, Toledo; James N. Wychgel, Cleveland; Charles A. LaMont, Canton; Carl A. Lincke, Carrollton; Blaine R. Goldsberry, Athens; George G. Hunter, Ironton; Claude S. Perry, Columbus; Charles R. Keller, Mansfield.

Poor Relief—Dr. Walter K. Stewart, Youngstown, chairman; Drs. E. O. Swartz, Cincinnati; R. S. Binkley, Dayton; R. N. Whitehead, Bowling Green; E. B. Gillette, Toledo; F. S. Van Dyke, Canton; W. L. Denny, Cambridge; Dow Allard, Portsmouth; F. C. Callaway, Marysville; Fowler B. Roberts, Akron.

Medical Service Plans—Dr. John E. Rauschkolb, Cleveland, chairman; Drs. Robert C. Rothenberg, Cincinnati; G. A. Woodhouse, Pleasant Hill; Dow Allard, Portsmouth; Jonathan Forman, Columbus; Carl R. Damron, Mansfield; President, President-Elect, and Past-President, members ex-officio.

Workmen's Compensation—Dr. Barney J. Hein, Toledo; Drs. Drew L. Davies, Columbus; Malcolm Cook, Hamilton; Robert L. Eastman, Mt. Vernon; D. W. Heusinkveld, Cincinnati, J. Craig Bowman, Upper Sandusky.

Public Health Education—Dr. Carl A. Wilzbach, Cincinnati, chairman; Drs. V. C. Rowland, Cleveland; C. I. Stephen, Ansonia; James A. Doull, Cleveland; F. L. Shively, Dayton; Edward King, Cincinnati; M. D. Shilling, Ashland; R. K. Ramsayer, Canton; C. E. Hufford, Toledo; L. D. Bonar, Mansfield; H. M. Clodfelter, Columbus.

Legislation—Dr. Ralph M. Watkins, Cleveland, chairman; Dr. O. J. Walker, Youngstown, vice-chairman; Drs. Emil R. Swepston, Cincinnati; J. C. Larkin, Hillsboro; Clyde M. Fitch, Portsmouth; A. Howard Smith, Marietta; I. B. Harris, Columbus; W. W. Trostel, Piqua; John V. Hartman, Findlay; Jay W. Calhoon, Uhrichsville; J. W. Schoolnic, East Liverpool; John M. Van Dyke, Canton; James G. Blower, Akron; M. D. Shilling, Ashland; George F. Linn, Norwalk; D. J. Slosser, Defiance; A. A. Brindley, Toledo.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Commission Adopts New Rules For Defining "Disability"

In an attempt to make its administrative practice and procedure more definite and to define "when disability due to an occupational disease began", the State Industrial Commission has adopted the following rules:

"1. In claims for medical expense only, where there is no lost time or impairment in earning capacity involved, the statute shall begin to run from the time the claimant first had medical treatment as a result of his occupational disease.

"2. In claims where there is compensation involved for lost time or impairment of earning capacity, the statute shall begin to run from the time the claimant is actually incapacitated, that is, his earning capacity is impaired or time is actually lost due to the occupational disease, provided, however, that in those claims where it clearly appears that the claimant in good faith was not aware that he was suffering from an occupational disease at the time his medical treatment or incapacity began, the statute of limitations shall not begin to run until the claimant has knowledge, or in the exercise of reasonable diligence should have had knowledge, that his condition was probably an occupational disease."

W. K. Merriman, assistant chief of the Claims Section of the State Industrial Commission, and member of the Commission's staff since 1913, retired April 1.

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Honoring Dr. J. H. Norris on his 65th anniversary as a practicing physician, Fostoria physicians gave a dinner for him April 15, at the Elks Club. Dr. Norris, who was 87 years of age on May 13, has been practicing medicine in Fostoria since 1880, and has occupied the same office there for 53 years.

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The Akron City Health Department recently recorded the first death from diphtheria there in five years.

Biographical Sketches Reveal the Four New Councilors Are Active Workers in Medical Organization

INTERESTING biographical information about the four new Councilors, elected by the House of Delegates at the recent 96th Annual Meeting of the Ohio State Medical Association in Columbus, is presented by *The Journal* in the following thumb-nail sketches, in order to acquaint the membership generally with the qualifications of the men who have been chosen for the important office of Councilor:

New Seventh District Councilor is Dr. Carl A. Lincke, Carrollton, who brings to his position the experience of seven years of official duties in both state and local medical organizations. A native of Alliance, Ohio, Dr. Lincke was born on Christmas Day, 1905. He attended Alliance public schools and was graduated from high school there in 1923. Both his pre-medical and medical educations were obtained at Ohio State University. He received his medical degree in 1931 and interned at White Cross Hospital, Columbus.

DR. LINCKE

Dr. Lincke was president of the Carroll County Medical Society last year, and during the preceding six years he served as its secretary. He is a member of the Medical Preparedness Committee of the State Association and will continue to serve in that capacity and on the State Procurement and Assignment Committee.

The new councilor is a member of Nu Sigma Nu medical fraternity. He is active in the Carrollton Rotary Club and holds membership in Masonry and in the Elks. He is married and has a son and daughter.

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Dr. Gilbert Micklethwaite, Portsmouth, New Ninth District Councilor, comes to his post with a background of 20 years of official activity in State Association affairs. Born in Portsmouth on February 26, 1891, Dr. Micklethwaite received his early education in the public schools of that city. He was graduated in 1913 from Ohio University with the degree of Bachelor of Science, and in 1917 he was awarded his medical degree by Johns Hopkins University. He spent the following year at Union Protest Infirmary, Baltimore, as intern, and then entered the U. S. Army Medical Corps, with which he was affiliated for 15 months.

DR. MICKLETHWAITE

For the last 23 years, Dr. Micklethwaite has practiced in Portsmouth. His activity as an official of the Ohio State Medical Association began in 1922, when the Hempstead Academy of Medicine named him an alternate delegate. From 1925 through 1942 he served, with two brief interruptions, as delegate from the Scioto County group. From 1930 through 1935 the new councilor was a member of the former Publication Committee of the State Association, which was charged with publishing *The Journal.*

Married, Dr. Micklethwaite is the father of a seventeen-year-old daughter and a thirteen-year-old son.

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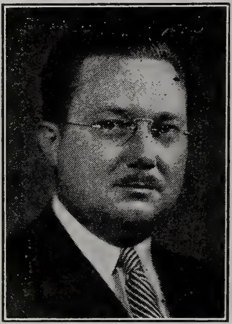
Recognizing his active interest in medical organization, the House of Delegates, elected Dr. Harve M. Clodfelter, Columbus, to the position of Tenth District Councilor, to fill the unexpired term of Dr. C. C. Sherburne, new President-Elect.


DR. CLODFELTER

Born in Mercer County, Missouri, in 1905, Dr. Clodfelter attended the University of Kansas for both his pre-medical and his medical education, receiving his medical degree there in 1930. Following internship at St. Margaret's Hospital, Kansas City, Kan., he engaged in general practice for several years in Tonganoxie, Kan. In 1934 he was granted a fellowship in medicine at the Cleveland Clinic, where he worked for 18 months, and in 1935 he moved to Columbus. He is now in practice there, and is a member of the staffs of Mt. Carmel, St. Francis, and Grant Hospitals and an instructor in medicine at Ohio State University College of Medicine.

Outstanding among Dr. Clodfelter's activities is his chairmanship of the Public Education Committee of the Columbus Academy of Medicine. In that capacity he has for three years had charge of "How's the Patient?" a medical radio program broadcast weekly over WBNS and considered one of the best of its kind in the United States. He is also a member of the Council of the Academy, a member of the editorial board of its *Bulletin*, a trustee of the Columbus Bureau of Medical and Dental Economics, and an executive committee member of the Board of Trustees of Columbus' Hospital Certification Service.

Dr. Clodfelter was recently appointed to the Sub-Committee on Public Health Education of the State Association. He has twice been a speaker on the Regional Postgraduate Lecture Series of the Association. He is a member of Phi Chi professional fraternity, is married and is the father of three daughters and a son.

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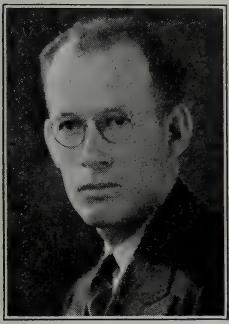
Dr. Ross M. Knoble, Sandusky, who has been active in the affairs of both state and local medical organizations for several years, was selected for the office of Eleventh District Councilor.



DR. KNOBLE

The son of Dr. Carl R. Knoble, Doctor Knoble was born in Sandusky, September 27, 1905. After graduating from high school there in 1923, he entered Western Reserve University, from which he received his bachelorate in 1927. His medical education was obtained at Ohio State University, where he was graduated in 1932. He served his internship at Mt. Carmel Hospital, Columbus.

For the last seven years, Dr. Knoble has been secretary of the Erie County Medical Society, and he is now its president. He has also been a delegate from that society to the Ohio State Medical Association for six years.

Dr. Knoble is a member of Beta Theta Pi social fraternity and belongs to Alpha Kappa Kappa professional fraternity. He is married and has two daughters. His hobbies are golf, stamp collecting and gardening.

Army Health Better

Army health last winter was 50 per cent better than the year before, according to hospital admission statistics published by the Surgeon General. Five reasons for the improvement are given: Better health conditions in the nation generally and lack of extensive epidemics; the army was composed of more seasoned troops; army expansion was limited by housing and hospitalization facilities; measures of good preventive medicine and personal and group hygiene were enforced; and surgeons were interested in guarding the health of the command through sick call, sanitary inspections and hospitals.

Do You Know - - -

Dr. Reed A. Shank, Cincinnati, has been appointed a member of the Board of Directors of the University of Cincinnati for a nine-year term, succeeding Dr. William M. Doughty, whose term expired December 31.

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The Ohio Supreme Court on April 10 overruled action of the state board of apportionment which last Spring revamped Ohio's state senatorial districts, and ruled that the districts must retain the same boundaries they have held for the last 10 years.

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According to the *Statistical Bulletin* of the Metropolitan Life Insurance Company, last year around 1,100 persons, nearly one-fourth more than in 1940, it is estimated, were killed in bicycle accidents in the United States. In 1932, just before the beginning of a marked revival in the popularity of recreational bicycling throughout the country, there were only 450 deaths.

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Dr. Joseph B. De Lee, noted obstetrician, died at his home in Chicago, April 2, of coronary thrombosis. He was 72 years old.

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Dr. Hugh H. Young, professor of urology, Johns Hopkins University School of Medicine, Baltimore, and director of the Brady Urological Institute of Johns Hopkins Hospital, Baltimore, will retire at the end of the present academic year, June 30, with the title of professor emeritus of urology. He will retain offices in the Brady Institute.

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Because of an insufficient number of candidates, the American Board of Dermatology and Syphilology announces that no examination will be held in June at the time of the meeting of the American Medical Association. An examination will probably be held in the Fall, notice of which will be published later.

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Speakers at the Annual Alumni Clinic Day of the Wayne University College of Medicine, Detroit, May 6 included Dr. John T. Murphy, Toledo, who spoke on "X-Ray Treatment of Lesions of the Face", and Dr. George M. Curtis, Columbus, who discussed "The Diagnosis of Splenic Enlargements".

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Ohio physicians recently elected officers of special societies include Dr. Roy W. Scott, Cleveland, vice-president, the American Heart Association, and Dr. Howard T. Karsner, Cleveland, secretary, the American Association of Pathologists and Bacteriologists.

Recent Annual Meeting Outstanding Success, New Features On Program Popular; Total Number Registered 1880

ATTRACTED by an exceptionally fine program, nearly 1300 physicians gathered at the Neil House, Columbus, April 28-30, for the Ninety-Sixth Annual Meeting of the Ohio State Medical Association. Included were 1221 members of the Association, 13 out-of-state physicians and 67 guest physicians, residents and interns, making a total of 1301 physicians who registered. Among 579 guests who registered were 123 medical students; 62 nurses, technicians, public health workers, teachers, etc.; 275 women guests and 119 technical exhibitors, making the total registration 1880, a figure exceeded only once in previous annual meetings. Attendance at the 1938 Annual Meeting in Columbus was 2068, including 1330 members of the Association.

EXCELLENT TALKS BY GUEST SPEAKERS

Headlined by 11 out-of-state guest speakers, all nationally renowned in their respective fields, the program was carried out as scheduled in the April issue of *The Journal*. Addressing crowds of from 300 to 500, these guest speakers by their timely and informative presentations substantiated the judgment of the Committee on Scientific Work in selecting them to appear on the program.

The guest speakers were: Dr. Chester S. Keefer, Boston, Wade Professor of Medicine, Boston University School of Medicine; Dr. Frederick A. Coller, Ann Arbor, professor of surgery, University of Michigan Medical School; Dr. William G. Lennox, Boston, assistant professor of neurology, Harvard University Medical School; Dr. Richard H. Freyberg, Ann Arbor, assistant professor of internal medicine and director, Rackham Arthritis Research Unit, University of Michigan Medical School; Dr. Tinsley R. Harrison, Winston-Salem, N.C, professor of medicine, Wake Forest College, School of Medicine; Col. L. G. Rowntree, M.C., U.S.A., Washington, D.C., chief, Medical Division, National Selective Service System; E. V. Cowdry, Ph.D., St. Louis, Mo., professor of anatomy, Washington University School of Medicine; Dr. Frank H. Krusen, Rochester, Minn., professor of physical medicine, University of Minnesota Medical School and The Mayo Foundation; Dr. Merrill C. Sosman, Boston, Mass., clinical professor of roentgenology, Harvard University Medical School; Dr. John H. Lawrence, Berkeley, Calif., director of medical research, Crocker Radiation Laboratory, University of California Medical School; and Dr. Alson E. Braley, New York, assistant professor, Columbia University College of Physicians and Surgeons, who was guest speaker at the Section on Eye, Ear, Nose and Throat.

Two innovations on the 1942 program which evoked much favorable comment were the quiz-discussion sessions and the medical motion pictures. Moderators and conferees for the quiz-discussion sessions included the guest speakers and Ohio physicians selected by the Committee on Scientific Work for their accomplishments in the subjects under consideration. Discussions centered around questions which had been submitted in writing by physicians who attended the general sessions, augmented by questions from the floor. All who attended the quiz-meetings were given an opportunity to raise points for clarification. The result was a practical contribution to the scientific value of the program.

AN IMPORTANT SUGGESTION

Business transacted during the Annual Meeting is recorded in detail in the Proceedings of The Council and the Proceedings of the House of Delegates, published elsewhere in this issue of The Journal. Every member should read these minutes to familiarize himself with the activities of the Association and the problems confronting it.

Twenty-eight medical movies, some in color and some talkies, were shown continuously, throughout the meeting. Selected from a list of several hundred films produced by outstanding authorities, this addition of strictly visual education to the Annual Meeting program, by popular demand will undoubtedly be on the "must" list for future programs.

NEW SECTION OFFICERS

There were six section meetings, all well-attended, with excellent programs arranged by the section officers. Each section presented five speakers, with a 10-minute discussion period following each paper.

New officers elected by the sections are: Medicine — Dr. Robert C. Rothenberg, Cincinnati chairman; Dr. Frank M. Wiseley, Findlay, secretary. Surgery—Dr. Wm. Kelley Hale, Wilmington, chairman; Dr. J. Edwin Purdy, Canton, secretary; Obstetrics and Gynecology—Dr. Tom F. Lewis, Columbus, chairman; Dr. M. D. Haag, Toledo, secretary. Pediatrics—Dr. Earl H. Baxter, Columbus, chairman; Dr. M. L. Ainsworth, Columbus, secretary. Eye, Ear, Nose and Throat—Dr. W. H. Evans, Youngstown, chairman; Dr. H. C. Rosenberger, Cleveland, secretary. Nervous and Mental Diseases—Dr. Howard D. Fabing, Cincinnati, chairman; Dr. John M. Wittenbrook, Columbus, secretary.

Housed on the spacious Mezzanine Floor and the Junior Ballroom of the Neil House were 14 educational exhibits and 49 technical exhibits, the latter representing companies who are offering approved products to the medical profession. These exhibitors were generally well-pleased with the patronage obtained during the meeting, and most of them were pleasantly surprised that the attendance at the meeting exceeded their expectations.

SOCIAL EVENTS POPULAR

Innovations at this year's State Meeting were not confined to the scientific side of the program. There were two social occasions that deserve special mention. On Tuesday evening, after the Quiz-Discussion Session had adjourned, the Columbus Academy of Medicine celebrated its Fiftieth Anniversary by being host at a smoker for all who wished to attend, in the Hall of Mirrors in the Deshler-Wallick Hotel. Over 300 physicians enjoyed the entertainment and refreshments provided.

Officers of county medical societies, members of the House of Delegates and officials of the State Association were guests at an invitational smoker Wednesday evening at the University Club. Feature of this session was a talk on "Procurement and Assignment for Physicians," by Thomas A. Hendricks, executive secretary of the Indiana State Medical Association and now part-time consultant in the Washington, D.C., office of Procurement and Assignment.

Dr. Edward J. McCormick, Toledo, President of the State Association, was master of ceremonies. Other speakers were Dr. Harry V. Paryzek, Cleveland, retiring president, "The Status of Medical Service Plans"; Dr. William S. Keller, Senior Surgeon Reserve, U.S. Public Health Service, Regional Medical Officer, Fifth Region, Office of Civilian Defense, "The Role of the Physician in the Civilian Defense Program"; Dr. R. H. Markwith, State Director of Health, "Public Health Administration in Ohio and the War". Following the program there was a general reception at which the men who are leaders of medical organization in Ohio had a chance to know each other better and to talk over common problems. Planned as a trial substitute for the traditional House of Delegates luncheon, this occasion proved to be even more successful than its sponsors had predicted.

ANNUAL BANQUET A SUCCESS

Approximately 200 physicians and their guests attended the Annual Banquet held in the Main Ballroom of the Neil House. The principal speaker was Dr. Roderick Peattie, Columbus, internationally-known geographer and author and professor of geography, Ohio State University. His subject was "The Significance and Limitations of Geo-Politics". Drawing on his intimate knowledge of social, economic and political conditions throughout the world, Dr. Peattie gave a most stimulating address.

Preceding his talk, the toastmaster, Dr. Edwin J. Stedem, Columbus, introduced the incoming President of the State Association, Dr. Edward J. McCormick, Toledo; the President-Elect, Dr. C. C. Sherburne, Columbus, and other officials of the Association. Dr. William M. Skipp, Youngstown, welcomed Dr. Harry V. Paryzek, Cleveland, to the ranks of the Past-Presidents, complimented him on his administration and presented him with the past-president's gavel, a replica of the gavel used by the president at meetings of the House of Delegates. The musical program included instrumental numbers by the Ohio State University Trio; solos by Thomas Dickens, Columbus baritone, and vocal selections by the Columbus Boys Choir.

RADIO PROGRAMS

The educational radio programs, arranged by the Bureau of Public Education, were broadcast over three Columbus stations in connection with the Annual Meeting. Following the precedent set at the Cincinnati meeting two years ago, these programs, with three exceptions, presented physicians officially connected with the meeting program in interviews with station announcers.

The three exceptions were five-minute news round-ups from the meeting presented each evening over WBNS with Dr. Harve M. Clodfelter, Columbus, chairman of the Columbus Academy of Medicine's Public Education Committee, serving as commentator. These newscasts were patterned after the popular news programs in style and presented in lay terminology the points of outstanding public interest brought out in the papers and discussions on that day's program. This was an innovation in medical radio programs and was well received by both the public and the radio station officials.

Two of the regular series of programs sponsored by the Columbus Academy were devoted to the State Association meeting. On April 21, Dr. John M. Wilce, Columbus, chairman of the Committee on Local Arrangements, was interviewed on "What Goes on at a Medical Meeting" and presented a preview of the program at that time. On April 28, Dr. Harry V. Paryzek, Dr. Edward J. McCormick, and Dr. Clodfelter participated in a panel discussion with Mr. Irwin Johnson, WBNS director of developmental programs, on "Ohio Doctors in Defense".

At 4:45 p.m. each day of the meeting Station WHKC presented an interview with a program participant. On April 28, Dr. James H. Bennett, Cincinnati, discussed anesthesia; on April 28, Dr. Paul I. Hoxworth, Cincinnati, explained blood plasma and the Red Cross plasma procurement program; and on April 30, Dr. K. C. McCarthy, Toledo, talked on "Surgery Under Bombs".

Dr. John A. Toomey, Cleveland, was interviewed on infantile paralysis over WCOL on April 28, and on April 30 the same station presented an interview with Dr. H. Worley Kendell, Dayton, on fever therapy research.

Scripts for these broadcasts were prepared by the Bureau of Public Education working in collaboration with the physicians who participated. The scripts are on file in the Bureau and will be loaned to county medical societies for whatever value they may have in local adaptation.

EFFICIENT PLANNING

Much credit for the outstanding success of the 96th Annual Meeting is properly due to the planning of a large number of individuals. They include: Members of the Committee on Scientific Work; Dr. John W. Wilce, general chairman, and his local committees on arrangements of the Columbus Academy of Medicine; Stanley R. Mauck, executive secretary of the Academy, and members of his staff who operated the Information Desk so capably; Tom Sabrey, manager of the Neil House, and innumerable members of his staff who spared no effort to maintain the past record of the Neil House as being the ideal hotel for the State Meeting; and to the local newspapers and radio stations for their cooperation in publicizing the meeting.

STATISTICS ON REGISTRATION

The following tabulations show the registration figures for the past 24 succeeding Annual Meetings and the number of members from each county who registered at the 1942 Meeting, compared to the number of members in the county on December 31, 1941, and April 27, 1942:

ANNUAL MEETING REGISTRATION FOR
1919-1942 INCLUSIVE

Year	Place	Members	Out-of-State Physicians	Guests	Technical Exhibitors	Total
1919	Columbus	1173	10	264	92	1529
1920	Toledo	810	17	105	80	1062
1921	Columbus	1275	28	204	96	1503
1922	Cincinnati	1066	21	184	70	1341
1923	Dayton	1117	19	202	76	1414
1924	Cleveland	1301	13	180	109	1603
1925	Columbus	1204	17	361	107	1689
1926	Toledo	903	19	120	83	1125
1927	Columbus	1320	17	286	82	1705
1928	Cincinnati	916	27	92	80	1116
1929	Cleveland	1231	15	249	124	1619
1930	Columbus	1241	13	435	86	1775
1931	Toledo	826	13	198	50	1087
1932	Dayton	978	2	201	45	1226
1933	Akron	858	6	160	25	1049
1934	Columbus	1069	9	410	51	1539
1935	Cincinnati	973	17	197	84	1271
1936	Cleveland	1099	14	563	137	1813
1937	Dayton	1103	18	366	64	1551
1938	Columbus	1330	15	619	104	2068
1939	Toledo	1056	15	271	84	1426
1940	Cincinnati	1126	26	323	114	1589
*1941	Cleveland—Joint Meeting with A.M.A.					
1942	Columbus	1221	13	527	119	1880

Registration, 1942 Annual Meeting, By Counties and Membership Data

County	Membership Dec. 31, 1941	Membership April 27, 1942	Members Registered at 1942 Annual Meeting
Adams	17	16	3
Allen	77	76	23
Ashland	27	25	8
Ashtabula	49	51	2
Athens	34	33	13
Auglaize	28	26	9
Belmont	58	57	7
Brown	6	4	
Butler	91	92	13
Carroll	9	8	2
Champaign	19	19	8
Clark	87	80	17
Clermont	26	26	2
Clinton	22	18	10
Columbiana	64	60	9
Coshocton	22	20	11
Crawford	34	33	9
Cuyahoga	1295	1259	64
Darke	29	27	2
Defiance	15	14	1
Delaware	24	26	14
Erie	43	43	6
Fairfield	40	41	13
Fayette	15	14	4
Franklin	538	531	317
Fulton	18	20	3
Gallia	21	21	6
Geauga	12	11	1
Greene	37	35	9
Guernsey	26	25	7
Hamilton	824	778	73
Hancock	47	46	9
Hardin	21	21	5
Harrison	14	15	2
Henry	18	16	2
Highland	25	25	14
Hocking	12	11	2
Holmes	8	8	3
Huron	26	25	6
Jackson	10	10	3
Jefferson	68	61	9
Knox	31	31	7
Lake	33	31	3
Lawrence	24	26	5
Licking	54	53	22
Logan	28	27	2
Lorain	110	105	9
Lucas	355	326	42
Madison	16	16	7
Mahoning	231	235	29
Marion	48	46	11
Medina	31	30	8
Meigs	14	12	4
Mercer	18	18	2
Miami	52	49	21
Monroe	5	5	--
Montgomery	339	338	55
Morgan	9	9	2
Morrow	9	8	5
Muskingum	60	54	21
Ottawa	20	20	4
Paulding	15	14	1
Perry	20	18	7
Pickaway	15	16	4
Pike	8	8	5
Portage	28	27	3
Preble	14	13	1
Putnam	25	21	6
Richland	83	78	23
Ross	42	44	15
Sandusky	33	37	6
Scioto	70	64	17
Seneca	41	38	9
Shelby	25	23	8
Stark	218	218	30
Summit	298	303	31
Trumbull	78	73	10
Tuscarawas	53	52	11
Union	16	16	9
Van Wert	21	21	9
Vinton	3	4	2
Warren	18	17	2
Washington	32	31	11
Wayne	41	43	8
Williams	15	18	1
Wood	40	35	7
Wyandot	10	10	5
Totals	6604	6405	1221

Names of Those Who Registered

Ohio physicians who registered at the Columbus sessions were:

Adams—S. J. Ellison, Hazel L. Sproull, O. T. Sproull. **Allen**—M. R. Bixel, W. W. Beauchamp, E. H. Crawfis, John A. Glorioso, J. R. Johnson, K. G. Hawver, Chas. H. Leech, Frederic G. Maurer, J. M. McBride, Walter A. Noble, J. F. Ockuly, W. V. Parent, O. S. Robuck, C. E. Savage, T. T. Sidener, David L. Steiner, O. S. Steiner, Paul J. Stueber, John E. Talbott, Roger L. Tecklenberg, H. A. Thomas, J. R. Tillotson, A. N. Wiseley. **Ashland**—R. P. Bogniard, Herman M. Gunn, Paul E. Kellogg, L. Harold Martin, C. G. Paisley, Geo. P. Riebel, M. D. Shilling, R. L. Shilling. **Ashtabula**—P. J. Collander, A. M. Mills.

Athens—C. H. Creed, Byron Danford, Blaine R. Goldsberry, L. A. Hamilton, C. R. Hoskins, Wm. R. Hutchinson, J. T. Merwin, Beatrice Postle, A. L. Pritchard, John R. Sprague, E. I. Stanley, J. L. Webb, C. E. Welch. **Auglaize**—Chas. C. Berlin, Geo. B. Faulder, E. F. Heffner, R. C. Hunter, E. Y. Kuffner, Guy E. Noble, G. J. Nordenbrock, T. H. Will, I. E. Williams. **Belmont**—Harry Harris, Lewis L. Liggett, Carl W. Lose, H. M. Metcalf, H. H. Murphy, D. O. Sheppard, F. H. Stoup. **Butler**—C. T. Atkinson, E. O. Bauer, Fred Brosius, Lee H. Brown, H. L. Burdsall, Mabel E. Gardner, William H. Henry, H. M. Lowell, Mildred Law Snyder, Clyde I. Stafford, E. T. Storer, W. E. Storer. W. H. Williams.

Carroll—Lewis W. Cellio, Carl A. Lincke. **Champaign**—R. V. Anderson, Alpha F. Hawk, D. C. Houser, Lewis Inskeep, Forrest E. Lowry, I. Miller, Vogt Wolfe, Ansel Woodburn. **Clark**—Frank Anzinger, Jr., Carl T. Doeing, H. B. Elliott, C. W. Evans, E. P. Greenawalt, F. A. Hartley, D. W. Hogue, A. K. Howell, G. M. Lane, J. A. Link, Carl D. Marsh, Morris B. Martin, L. H. Mendelson, C. Walker Munz, Jas. H. Riley, John Srail, S. C. Yinger. **Clermont**—Carl Minning, Allan B. Rapp. **Clinton**—Robert Conard, R. W. DeCrow, G. E. Garvin, Kelley Hale, V. E. Hutchens, C. E. Kinzel, E. Dalton Peele, Frank A. Peele, Elizabeth Shrieves, William L. Wead.

Columbiana—Henry Bookwalter, Lee Bookwalter, Lea A. Cobbs, F. R. Crowgey, John A. Fraser, R. T. Holzbach, E. C. Louthan, M. D. McCutcheon, Roy E. Smucker. **Coshocton**—J. Clifford Briner, S. D. Cohen, F. W. Craig, Paul Hahn, R. E. Hopkins, H. W. Lear, A. P. Magness, H. H. Schwindt, J. G. Smailes, G. W. Stelzner, E. M. Wright. **Crawford**—Clarence Adams, D. D. Bibler, William W. Corwin, Mart L. Helfrich, O. R. Kackley, John M. Kidd, C. A. Lingenfelter, R. M. Malone, C. A. Marquart.

Cuyahoga—G. I. Bauman, A. S. Broglio, Charles W. Burhans, Howard Dittrick, Fred W. Dixon, Thomas H. Einsel, Ralph J. Frackelton, S. O. Freedlander, Curtis F. Garvin, Wm. P. Garver, Henry J. Gerstenberger, Marion Gibbons, Frank S. Gibson, C. Lee Graber, L. F. Huffman, Thomas E. Jones, Louis J. Karnosh, F. J. Kern, E. F. Kieger, P. J. Kmieck, Harold J. Knapp, Roscoe D. Leas, F. A. LeFevre, Hugh J. Leslie, H. R. Mangan, J. W. McCall, Edgar P. McNamee, Myron Metzenbaum, Paul G. Moore, M. Paul Motto, Andrew J. Nemecek, Bernard H. Nichols, William M. Novince, M. F. Oman, Conrad Ottelin, Harry V. Paryzek, David M. Polot, O. B. Pomeroy, U. V. Portmann, John K. Potter, G. C. Rankin, John E. Rauschkolb, W. H. Rieger, H. C. Rosenberger, V. C. Rowland, Albert D. Ruedemann, George L. Sackett, B. B. Sankey, R. W. Scott, D. S. Spreng, Cornelia A. Stoeltzing, Charles S. Stone, Richard E. Stout, Arnold F. Sydow, Thos. W. Thoburn, Roy H. Thompson, John A. Toomey, J. E. Tuckerman, Ralph M. Watkins, Wm. H. Weir, Norman C. Wetzel, R. J. Whitacre, John E. Williams, James N. Wychgel.

Darke—J. P. Gibbel, Gilbert Sayle. **Defiance**—D. J. Slosser. **Delaware**—E. V. Arnold, W. E. Borden, M. S. Cherington, D. S. Cowles, M. W. Davies, Harold W. Davis, D. S. James, Bernard R. Lauer, Geo. D. Lowry, Floyd V. Miller, H. L. Spiro, F. M. Stratton, E. M. Wilson, Elizabeth Workman. **Erie**—Wm. F. Burger, Wm. T. Fenker, Ross M. Knoble, H. W. Lehrer, E. J. Meckstroth, Paul N. Squire. **Fairfield**—H. M. Amstutz, Carl W. Brown, W. R. Coleman, Charles B. Crow, Harry C. Kurtz, A. V. Lerch, M. E. Nichols, Wilford D. Nusbaum, E. B. Roller, C. P. Swett, Kenneth W. Taylor, W. B. Taylor, W. E. Wiyiarch. **Fayette**—J. H. Persinger, K. R. Teachnor, James F. Wilson, Orlyn Wiseman.

Franklin—B. W. Abramson, Alban A. Ahn, Marion L. Ainsworth, John B. Alcorn, J. J. Alpers, D. J. Alspaugh, Willard B. Andrus, K. H. Armen, Shirley Armstrong, Ben Arnoff, H. M. Austin, Hugh A. Baldwin, Charles W. Barch, Robt. L. Barnes, B. F. Barney, J. F. Bateman, Henry A. Baughn, P. R. Bauman, E. H. Baxter, H. G. Beatty, James A. Beer, Louis C. Benkert, Casper H. Benson, Leslie L. Bigelow, Halbert B. Blakey, E. T. Bonar, G. H. Bonnell, R. W. Bonnell, H. E. Boucher, Chas. F. Bowen, Wade D. Bower, Isabel A. Bradley, R. I. Brashear, H. O. Bratton, Wayne Brehm, J. E. Briggs, Grace Nunemaker Brown, John Edwin Brown, John E. Brown, Jr., H. M. Brundage, A. K. Buell, Olan P. Burt, Alice M. Bustin.

A. S. Canowitz, J. J. Carter, E. H. Chapin, I. G. Clark, Paul C. Clark, H. M. Clodfelter, Kenneth A. Clouse, O. L. Coddington, George F. Collins, C. W. Conley, Geo. W. Copperrider, Dana W. Cox, Chester O. Cramer, Andre Crotti, Claude C. Crum, Thomas B. Curran, Wm. C. Davis, C. Joseph DeLor, M. F. Dixon, Charles A. Doan, Verne A. Dodd, Dorothy E. Donley, Robert F. Donley, J. Q. Dorgan, H. H. Dorr, A. H. Dunn, Joseph M. Dunn, S. D. Edelman, Chas. W. Edwards, E. J. Emerick, Edward G. Feldman, Roswell S. Fidler, Fred Fletcher, T. R. Fletcher, Dorothy Falkenstein, Jonathan Forman, Wiley L. Forman, Robert L. Frazier, C. F. Frosh, Albert D. Frost, Clarence Fry, Huston F. Fulton.

Morris Goldberg, Milton L. Goodman, S. J. Goodman, E. J. Gordon, Harold J. Gordon, Emilie C. Gorrell, Mary Ann Graber, Jos. M. Gettrost, H. D. Giles, David B. Gilliam, H. M. Gilmore, F. E. Ginder, Grant O. Graves, Helen P. Graves, Paul E. Grimm, S. J. Goldstein, E. von Haam, Frank Harrah, E. W. Harris, H. L. Harris, Harold K. Harris, I. B. Harris, L. M. Harris, William B. Harris, Ralph M. Hartwell, S. A. Hatfield, J. W. Hathaway, Arthur M. Hauer, Emery R. Hayhurst, Geo. J. Heer, Arthur G. Helmick, Warren W. Hicks, J. E. Hoberg, Z. J. R. Hollenbeck, Elmer G. Horton, Ben C. Houghton, C. D. Hoy, Raymond B. Hudson, F. C. Hugenberger, J. J. Hughes, Carl A. Hyer, George T. Harding, Warren G. Harding, 2nd, E. L. Harney, Robert S. Hamm, Esther Handcock, Forest C. Haney, Walter H. Hamilton, F. E. Hall, Augustus A. Hall, Morton Hajos, S. M. Horen, N. Paul Hudson.

W. D. Inglis, Walter A. Jaquith, Louis N. Jentgen, O. W. Jepsen, A. B. Johnson, R. R. Kahle, Max P. Kanter, A. L. Kefauver, G. W. Keil, J. E. Kershner, C. C. Kirk, R. A. Kidd, Jr., R. A. Kidd, E. M. Kilpatrick, Gilman D. Kirk, Robert Kirk, Ben R. Kirkendall, J. B. Kistler, K. P. Klassen, Phillip T. Knies, Herman W. Koerper, Roy E. Krigbaum, Frank J. Lacksen, Frank L. Lally, C. C. Landen, Albert B. Landrum, John W. Larcomb, Leonard F. Lauf, R. A. Laughlin, R. B. Lawyer, H. E. LeFever, Timothy Lehman, Jr., Norris E. Lenahan, D. R. Lewis, Tom F. Lewis, Bruce E. Lindsay, Emanuel C. Liss, Hedwig D. Lang, W. E. Lloyd, E. C. Ludwig.

F. N. Manos, H. S. Manuel, Louis Mark, R. H. Markwith, Olin R. Martin, A. F. McCoy, A. B. McConagha, Charles A. McDonald, Richard L. McFarland, Charles W. McGavran, II, Charles W. McGavran, James W. McGough, Blanche Montgomery Meyer, William G. Meyer, J. W. Means, Russel G. Means, W. H. Miller, M. E. Millhon, W. F. Millhon, D. A. Minder, Harry A. Minthorne, John H. Mitchell, Wm. F. Mitchell, Link M. Murphy, W. D. Murphy, Harry E. Myers, G. B. Nessley, Myron D. Miller, Howard R. Mitchell, Robert. D. Myers, Walter E. Obetz, Anton W. Oelgoetz, Edith M. Offerman, M. F. Osborn.

Dwight M. Palmer, Paul W. Palmer, John W. Parker, Charles W. Pavey, A. A. Peasley, Claude S. Perry, H. M. Platter, C. D. Postle, Joseph Price, W. L. Pritchard, Clark P. Pritchett, Dale E. Putnam, R. A. Ramsey, T. E. Rardin, Philip J. Reel, Edward Reinert, Harry L. Reinhart, W. S. Rhodes, John H. Richardson, Frank Riebel, J. A. Riebel, Rush Robinson, A. Sophie Rogers, R. A. Rogers, L. W. Rohr, O. F. Rosenow, Sam Rosenfeld, Pauline P. Rossel, L. J. Roth, J. A. Rudolph, M. B. Rusoff, E. H. Ryan.

Ruth H. St. John, Dan G. Sanor, Thomas D. Santurello, Flora Scherer, Henry H. Schwarzell, Roy J. Secrest, Miner W. Seymour, S. J. Shapiro, Clark E. Sharp, John W. Sheetz, Joseph H. Shepard, C. C. Sherburne, I. W. Sherwood, A. J. Shoemaker, Geo. P. Sims, Albert R. Smith, Beecher L. Smith, Clayton S. Smith, Kenneth M. Smith, Robert G. Smith, Wm. P. Smith, Chas. F. Smoot, Geo. H. Snyder, C. H. Solomonides, J. C. Sommer, Susan P. Souther, Carl L. Spohr, Juliet Stanton, Edwin J. Stedem, A. M. Steinfeld J. S. Stevens, A. R. Stone, Wm. A. Stoutenborough.

William Tandy, Ralph B. Taylor, Francis W. Thomas, John M. Thomas, E. A. Thrall, Harry A. Topolosky, Erwin W. Troutman, Thomas J. Trythall, L. E. Turton, J. P. Urban, C. M. Valentine, L. H. Van Buskirk, Richard E. Vance, Wm. S. Van Fossen, F. C. Wagenhals, Erwin B. Wallace. A. B. Walton, Thos. P. Wagler, Harold W. Ward, Frank Warner, James H. Warren, Fred H. Weber, H. V. Weirauk, M. Grace Welch, C. H. Wells, D. J. Whitacre, Harry O. Whitaker, Howard Whitehead, John W. Wilce, P. W. Willey, J. C. Williamson, Henry E. Wilson, Charlotte Winnemore, Bruce K. Wiseman, J. M. Wittenbrook, Robert E. S. Young, Lorne W. Yule, Luke V. Zartman, Richard W. Zollinger.

Fulton—L. C. Cosgrove, Jr., Harold Heffron, T. F. Smyth. **Gallia**—Leo C. Bean, W. Lewis Brown, Charles E. Holzer, G. A. Mack, Robert M. Wilson, David Yospur. **Geauga**—W. A. Reed. **Greene**—Roger C. Henderson, Donald F. Kyle, Ben R. McClellan, Reyburn McClellan, C. G. McPherson, H. C. Messenger, Harold E. Ray, Geneva Shong Rothemond, A. U. Vandeman. **Guernsey**—C. A. Craig, E. G. Ditch, E. F. Hunter, Fred W. Lane, Gordon Lawyer, George F. Swan, M. J. Thomas.

Hamilton—Charles D. Aring, Wm. F. Ashe, E. R. Bader, James H. Bennett, Ruth G. Bernheim, M. A. Blankenhorn, Joseph Bolin, Lester J. Bossert, Herbert J. Brinker, Albert L. Brown, John A. Caldwell, J. Sterrett Caldwell, S. Bertha Dauch, Stanley Dorst, Howard D. Fabing, Henry Felson, Lloyd King Felter, John A. Fisher, Jos. J. Flynn, Jos. A. Freiberg, Wm. E. Frischauer, David L. Graller, J. Victor Greenebaum, Harry H. Haggart, Morton Hamburger, Jr., Charles E. Hauser, D. W. Heuskinveld, Benjamin Hoyer, Paul I. Hoxworth, D. A. Johnston, Max Kastan, Wm. S. Keller, Edward King, J. Harold Kotte, Joseph Lindner, Frank H. Mayfield, C. J. McDevitt, Edward J. McGrath, George A. Meyers.

F. M. Oxley, Geo. F. Patterson, Philip Piker, C. A. Price, Andrew C. Renz, Wm. H. Rohdenburg, Clyde S. Roof, Robert C. Rothenberg, James M. Ruegsegger, Leon Schiff, Harold S. Schiro, E. H. Schoenling, L. Howard Schriver, A. L. Schwartz, Aaron Schwinger, Vinton E.

Siler, S. D. Simon, Parke G. Smith, Louis Sommer, H. A. Springer, C. Roy Steingrube, Cecil Striker, E. O. Swartz, Emil R. Swepston, W. S. Terwilleger, Wm. J. Topmoeller, A. R. Vonderahe, Edward A. Wagner, Josef Warkany, Joseph Weil, Foster M. Williams, Carl J. Wilzbach, Mendel Zeligs, M. M. Zinninger.

Hancock—H. E. Fruth, John V. Hartman, Dwight J. King, O. P. Klotz, R. N. Lee, M. K. Marshall, R. S. Rilling, H. K. Van Buren, Frank M. Wiseley. **Hardin**—F. M. Elliott, H. E. Gibson, John A. Kramer, Don R. Printz, C. V. Stark. **Harrison**—F. Foster Dye, E. L. Miller. **Henry**—B. L. Johnson, David A. Wiener. **Highland**—John G. Anderson, J. C. Bohl, J. Martin Byers, Walter Felson, Clifford G. Foor, J. H. Frame, J. B. Glenn, James R. Glier, W. M. Hoyt, H. H. Lowe, W. C. Martindill, W. B. Roads, T. W. Roberds, C. H. Skeen. **Hocking**—M. H. Cherrington, C. T. Grattidge. **Holmes**—A. J. Earney, Luther W. High, N. P. Stauffer. **Huron**—R. A. Blackman, Harold A. Erlenbach, R. C. Gill, Theodore V. Gerlinger, A. H. Kimmel, A. D. Robertson.

Jackson—J. L. Frazer, W. R. Riddell, Marlin R. Wedemeyer. **Jefferson**—John Y. Bevan, Carl Goehring, Fred B. Harrington, S. A. Harris, J. E. Miller, M. H. Rosenblum, Albert C. Sunseri, E. B. Weinman, Albert E. Weinstein. **Knox**—Ernest V. Ackerman, C. L. Harmen, James F. Lee, R. S. Lord, J. M. Pumphrey, O. W. Rapp, Julius Shamansky. **Lake**—James G. Powell, G. Robt. Smith, W. H. Willis. **Lawrence**—F. D. Campbell, O. H. Henninger, George G. Hunter, W. Wilson Lynd, F. R. Stewart.

Licking—H. B. Anderson, W. Allen Avery, C. G. Bozman, George N. Brown, G. W. Burner, James F. Busby, Geraldine H. Crocker, John N. Cross, Carl J. Dillon, George A. Gressle, Paul C. Grove, Robert Haubrich, W. E. Hopkins, James B. Johnson, R. W. Jones, R. C. Mauger, John R. McClure, James K. Nealon, H. R. Neeland, A. D. Piatt, R. G. Plummer, D. A. Skinner. **Logan** — John L. Maurer, F. Blair Webster. **Lorain**—Valloyd Adair, Waite Adair, S. V. Burley, Benj. Carlson, M. E. Kishman, I. L. Levin, Chas. R. Meek, Lawrence C. Meredith, F. R. C. Patterson.

Lucas—W. A. Baird, Albert L. Bershon, George T. Booth, A. A. Brindley, Arthur E. Cone, Fred M. Douglass, A. A. Fink, E. B. Gillette, Wendell W. Green, H. Campbell Haynie, B. J. Hein, John F. Hillabrand, Paul Hohly, E. W. Huffer, Philip Katz, G. D. Keil, Rollin Kuebbeler, L. A. Levison, Charles Lukens, John A. Lukens, E. Richard Marker, K. C. McCarthy, Edward J. McCormick, Donald F. McGrath, C. V. McNamara, W. H. Meffley, Lawrence D. Miller, John T. Murphy, Foster Myers, F. N. Nagel, E. A. Ockuly, Frederick P. Osgood, Willis S. Peck, Edward J. Purchla, Thomas L. Ramsey, S. R. Salzman, Max T. Schnitker, Dudley M. Stewart, John L. Stifel, Morris Weinblatt, Dale Wilson, Ira B. Winger.

Madison—Paul Hildebrant, W. A. Holman, R. W. E. Irwin, J. A. Knapp, J. M. Morse, F. E. Rosenagle, G. C. Scheetz. **Mahoning**—W. K. Allsop, E. C. Baker, Morrison Belmont, L. Geo. Coe, G. E. DeCicco, W. H. Evans, Paul J. Fuzy. J. C. Hall, William F. Hatcher, John Heberding, Paul M. Kaufman, John E. L. Keyes, P. H. Leimbach, David H. Levy, J. N. McCann, H. E. McClenahan, H. P. McGregor, Gordon G. Nelson, Claude B. Norris, R. B. Poling, Edward J. Reilly, Samuel H. Sedwitz, A. B. Sherk, Wm. M. Skipp, Ivan C. Smith, Myron H. Steinberg, Walter K. Stewart, Walter J. Tims, Craig C. Wales.

Marion—Curtis L. Baker, Robt. T. Gray, Bret B. Hurd, John Alfred McNamara, H. K. Mouser, B. D. Osborn, Frederick W. Rea, L. L. Roebuck, Warren C. Sawyer, Jack F. Smyth, Martin M. Weinbaum. **Medina**—E. L. Crum, R. F. Fasoli, R. G. Johnston, John L. Jones, Morris M. Malmud, J. R. Moorehead, H. T. Pease, R. A. Styblo. **Meigs**—Byron Bing, R. E. Boice, P. R. Jividen, John Philson. **Mercer** — G. I. Scheetz, W. C. Scheidt. **Miami**—L. T. Arthur, Charles Baker, John F. Beachler, J. Robert Caywood, Howard Farmer, Russell Gardner, Fred B. Hapke, B. M. Hogle, H. W. Kendell, Kenneth F. Lowry, E. T. Pearson, E. G. Puterbaugh, John T. Quirk, L. A. Ruhl, C. E. Stout, E. R. Torrence, W. W. Trostel, R. H. Wehr, G. A. Woodhouse, E. A. Yates, Ralph D. Yates.

Montgomery—J. D. Apple, Roy D. Arn, S. H. Ashmun, Roy S. Binkley, Albert V. Black, G. T. Bowers, Wm. B. Bryant, C. E. Burgett, H. W. Burnett, A. W. Carley, Homer D. Cassel, A. D. Cook, R. F. Corwin, F. D. Crowl, C. J. Derby, R. D. Dooley, Eleanora S. Everhard, Gertrude Felker, Robert H. Firth, W. R. Grandin, F. V. Grice, H. C. Hanning, W. H. Hanning, J. K. Hoerner, Emmett L. Hooper, Karl W. Horn, Robert D. Hostetter, T. F. Humphrey, R. B. Jacobs, H. W. Kendell, P. H. Kilbourne, Kenneth Kurtz, L. J. Lohr, A. P. McDonald, J. W. Millette, Henry A. Mosher, Melvin Oosting, C. C. Payne, Jos. H. Prince, Merrill D. Prugh, R. E. Pumphrey, George J. Rau, L. E. Seyler, Everett W. Shank, F. L. Shively, E. McCall Smith, E. Wallace Smith, C. P. Somsel, J. D. Spaid, H. L. Strohmeyer, Ben F. Suffron, J. S. Surdyk, W. B. Taggart, Chas. W. Thomas, Giles Wolverton.

Morgan—C. E. Northrup, E. G. Rex. **Morrow**—Frank M. Hartsook, Lowell Murphy, R. L. Pierce, E. C. Sherman, Frank H. Sweeney. **Muskingum**—S. P. Carter, David G. Caudy, Ward D. Coffman, W. L. Cruise, I. W. Curtiss, W. B. Devine, W. B. Faircloth, Beatrice T. Hagen, Herman B. Kaufman, Lester Lasky, M. A. Loebell, George C. Malley, Robert S. Martin, J. E. McCormick, S. W. Obenour, A. C. Ormond, Fred W. Phillips, M. H. Powelson, C. F. Sisk, G. B. Trout, Earl B. Zurbrugg. **Ottawa**—Geo. A. Boon, F. E. Miller, E. D. Schuiteman, C. J. Yeisley. **Paulding**—L. R. Fast. **Perry**—Edgar D. Allen, Sydney N. Lord, C. B. McDougal, James Miller, R. W. Miller, H. F. Minshull, W. D. Porterfield.

Pickaway—D. V. Courtright, G. R. Gardner, Geo. W. Heffner, V. D. Kerns. **Pike**—R. M. Andre, Robert T. Leever, W. L. McCaleb, I. P. Seiler, L. E. Wills. **Portage**—Elizabeth A. Leggett, Edward T. Meacham, S. U. Sivon. **Preble**—G. W. Flory. **Putnam**—E. Blackburn, J. R. Echelbarger, H. A. Neiswander, A. H. Nihizer, Milo B. Rice, Carl H. Zinsmeister. **Richland**—C. H. Bell, P. A. Blackstone, Wallace H. Buker, John J. Clark, Carl R. Damron, R. E. Frush, J. M. Garber, John S. Hattery, C. L. Hannum, Charles R. Keller, Harlin G. Knierim, Earl C. Mast, J. F. McHugh, Howard B. Peck, F. W. Peppard, O. H. Schettler, Charles L. Shafer, J. L. Stevens, H. T. Stiles, D. A. Wier, Hugh C. Winbigler, R. C. Wise, J. A. Yoder.

Ross—Edwin Artman, R. C. Bane, Walter C. Breth, Geo. W. Cooper, Richard L. Counts, H. M. Crumley, E. Hemmeger, Ralph W. Holmes, O. L. Iden, Geo. S. Mytinger, Glen Nisley, David A. Perrin, M. D. Scholl, Warde B. Smith, O. P. Tatman. **Sandusky** — J. C. Boyce, Chester G. Egger, R. Allen Eyestone, Harold L. Keiser, Edward W. Sanders, Chas. J. Wehr. **Scioto**—Dow Allard, Arthur Baer, Geo. D. Blume, Clyde M. Fitch, J. W. Fitch, Jackson Herbert, A. P. Hunt, J. W. Hutchens, H. M. Keil, T. G. McCormick, Gilbert Micklethwaite, Tunis Nunemaker, George E. Obrist, W. A. Quinn, Joseph S. Rardin, Wm. E. Scaggs, Oral D. Tatje.

Seneca—Robert Chamberlain, C. W. Consolo, Lawton C. Gerlinger, R. R. Hendershott, John M. Leahy, Paul J. Leahy, E. F. Ley, W. W. Lucas, Victor L. Magers. **Shelby**—Paul C. Bratton, H. C. Clayton, H. Eugene Crimm, Hugh S. Elliott, A. B. Gudenkauf, F. R. McVay, E. P. Sparks, Jr., Harry Wain. **Stark**—L. E. Anderson, A. R. Basinger, F. P. Bennett, H. H. Bowman, Harold J. Bowman, Emerson Gillespie, Clare E. Fraunfelter, L. L. Frick, Ian B. Hamilton, J. Mace Harkey, R. M. Harner, Frank E. Hart, Clair B. King, Fred G. King, Chas. A. LeMont, A. A. Lichtblau, Joseph A. Mack, James A. McNalley, John D. O'Brien, J. E. Purdy, R. K. Ramsayer, R. L. Rutledge, O. W. Show, John M. Van Dyke, Elmer A. Volzer, A. W. Warren, Geo. J. Wenger, Geo. M. Wilcoxon, George F. Zinninger, Pauline Zinninger.

Summit—Robt. T. Allison, Jr., T. L. Bliss, E. R. Blower, H. R. Conn, Daniel W. Davis, Roger Q. Davis, L. R. C. Eberhard, Wm. H. Falor, R. A. Gregg, Harry A. Karam, Carl H. Kent, J. G. Kramer, Carl E. Krill, R. M. Lemmon, D. B. Lowe, E. L. Mather, C. T. McCormish, L. B. Mehl, G. K. Parke, T. L. Parry, Chas. C. Pinkerton, R. E. Pinkerton, Fowler B. Roberts, Andrew S. Robinson, J. Paul Sauvageot, E. R. Shaffer, H. Vern Sharp, Hazel P. Simms, J. E. Springer, Carl R. Steinke, Edward L. Voke. **Trumbull**—David L. Beers, J. H. Caldwell, J. M. Gledhill, J. A. Heeley, R. D. Herlinger, John D. Knox, H. W. Law, D. R. Mathie, Joseph A. Ralston, E. R. Westbrook. **Tuscarawas**—W. R. Agricola, Jay W. Calhoon, D. M. Ceramella, W. W. H. Curtiss, Edgar C. Davis, R. J. Foster, William E. Hudson, Geo. B. Kistler, James A. McCollam, C. J. Miller, Clare W. Smith.

Union—John Dean Boylan, John L. Boylan, Fred Callaway, Earl W. Euans, P. D. Longbrake, Angus MacIvor, J. M. Snider, H. G. Southard, F. M. Wurstbaugh. **Van Wert**—O. E. Cress, G. A. Edwards, Roland H. Good, J. R. Jarvis, C. A. Morgan, J. B. Sampsell, R. E. Shell, Wayne C. Smith, H. D. Underwood. **Vinton**—H. D. Chamberlain, Herbert F. Kesinger. **Warren**—N. A. Hamilton, O. L. Layman. **Washington**—Charles C. Deamude, F. E. Eddy, W. S. Hawn, G. E. Huston, T. R. Mattocks, W. F. Mills, M. S. Muskat, Deane H. Northrup, W. E. Radcliff, W. D. Turner, J. F. Weber.

Wayne—E. F. Burgess, F. C. Ganyard, F. D. Halleck, Arthur T. Hopwood, R. C. Paul, Alonzo C. Smith, M. E. Stilwill, O. P. Ulrich. **Williams**—H. W. Wertz. **Wood**—Frank V. Boyle, E. D. Foltz, H. W. Mannhardt, Paul F. Orr, D. B. Spitler, F. L. Sterling, R. N. Whitehead. **Wyandot**—J. Craig Bowman, R. L. Garster, B. A. Maloney, C. B. Schoolfield, F. M. Smith.

Series of Courses in "Kenny" Method of Treating Poliomyelitis Offered

A series of courses in the Kenny method of the treatment of early poliomyelitis will be conducted in Minneapolis under the supervision of Dr. Miland E. Knapp, director of the department of physical therapy, University of Minnesota Medical School, Minneapolis. The courses will be financed by the National Foundation for Infantile Paralysis. They have been arranged for physicians, registered physical therapy technicians, nurses with responsible positions in teaching institutions and nurses in key positions in large contagious disease hospitals. The classes will be repeated at various times in the next six to twelve months. The physicians' course is to be of one week's duration and limited to fifteen physicians although it will be repeated from time to time as the demand requires. The course for nurses from contagious disease hospitals is also of one week's duration. The course for registered physical therapy technicians, preferably technicians who have also had nurses' training, and for nurses in teaching institutions is of two to six months' duration. It is recommended that each institution contemplating the inclusion of the Kenny treatment in its program send a physician, a technician and a nurse for training. Inquiries concerning fees and dates of courses should be sent to the Director, Center for Continuation Study, University of Minnesota, Minneapolis.

Woman's Auxiliary Has Had Successful and Busy Year, Reports Made at Annual Meeting, Columbus, Reveal

THIRTY-ONE Ohio counties now have woman's auxiliaries to county medical societies, with a total membership of 1,666, Mrs. W. W. H. Curtiss, Dennison, President of the Woman's Auxiliary to the Ohio State Medical Association, reported at the Second Annual Meeting of the Auxiliary, April 29-30, at the Deshler-Wallick Hotel, Columbus. Registration at the meeting totaled 134, including 12 officers and directors, 33 delegates, 19 alternates and 70 guests.

Counties in which auxiliaries were added during the year are: Ross, Henry and Marion. The Woman's Auxiliary to the Hancock County Medical Soicety, which was organized last year, did not join the State Auxiliary until this year. Counties previously affiliated are: Allen, Ashland, Belmont, Butler, Crawford, Columbiana, Cuyahoga, Defiance, Franklin, Hamilton, Highland, Huron, Knox, Lorain, Lucas, Mahoning, Medina, Miami, Richland, Scioto, Seneca, Stark, Summit, Tuscarawas, Trumbull, Van Wert and Washington.

DR. McCORMICK IS SPEAKER

Mrs. Curtiss called the group to order at the opening luncheon session, April 29. Invocation was pronounced by Frank G. Fowler, D.D., Columbus. Greetings to the convention were expressed by Mrs. Ralph W. Hoffman, Columbus, general chairman. Following introduction of Dr. Harry V. Paryzek, President of the Ohio State Medical Association; Dr. R. L. Rutledge, Alliance, a member of the Advisory Committee to the Auxiliary; and Dr. W. W. H. Curtiss, Dennison, husband of the President of the Auxiliary, Dr. Edward J. McCormick, Toledo, President-Elect of the Ohio State Medical Association, spoke on "Medicine of the Past, Present and Future."

At the opening session of the House of Delegates, Wednesday afternoon, April 29, Mrs. George O. Hoskins gave an address of welcome in behalf of the Woman's Auxiliary to the Columbus Academy of Medicine, to which Mrs. Dale P. Osborn, Cincinnati, President-Elect of the State Auxiliary, responded.

REVIEW OF ACTIVITIES

Self education has been the main object in programs of the auxiliaries this year, Mrs. Curtiss stated in the Annual Address of the President. This has been accomplished through lectures, book reviews, panel discussions and subscriptions to Hygeia and The Bulletin of the Woman's Auxiliary to the American Medical Association. Several counties have established Nurse's Training Student Loan Funds; others are aiding the Defense Program by assisting county medical societies in blood-bank projects and all auxiliaries are cooperating in Red Cross work.

Mrs. J. L. Stevens, Mansfield, secretary-treasurer, reported on the activities of her office with the local auxiliaries and district directors. The Treasurer's report showed Total Income, $1,919.50; Expenses, $1,125.09; Scholarship Fund, $411.24; Sinking Fund, $85.00; Balance in checking account, $298.26.

VOTE TO ESTABLISH LOAN FUND

Other reports received and approved included those of the standing committees and district directors, and the Historian, Mrs. A. A. Brindley, Toledo. On recommendation of the Board of Directors, the House of Delegates voted that a committee be appointed to establish and administer a Scholarship Loan Fund for Nurses. Several suggestions for changes in the constitution were made, and the incoming president was authorized to appoint a Committee on Amendments to the Constitution.

Activities on Wednesday evening included six "Little Dinners", at which various topics relating to the program of the auxiliary were discussed. At 9:00 that evening there was a reception for the President in the Hall of Mirrors, followed by a musical program and bridge.

NEW OFFICERS

The following new officers were elected at the Second Session of the House of Delegates on Thursday morning, April 30: Mrs. J. L. Stevens, Mansfield, president-elect; Mrs. R. B. Poling, Youngstown, vice-president; Mrs. M. E. Kishman, Lorain, secretary-treasurer; and the following district directors: First, Mrs. C. T. Atkinson, Middletown; Second, Mrs. W. W. Trostel, Piqua; Third, Mrs. Frank M. Wiseley, Findlay; Fourth, Mrs. D. A. Wiener, Deshler; Fifth, Mrs. Charles A. LaRocco, Cleveland; Sixth, Mrs. L. L. Frick, North Canton; Seventh, Mrs. C. W. Kirkland, Bellaire; Eighth, Mrs. R. M. Meredith, Marietta; Ninth, Mrs. Frank Seidenburg, Portsmouth; Tenth, Mrs. James F. Lee, Mt. Vernon; Eleventh, Mrs. R. F. Fasoli, Brunswick. The new officers were installed by Mrs. J. E. Purdy, Canton, the first President of the Woman's Auxiliary, including Mrs. Osborn, the incoming president.

DELEGATES CHOSEN

The Auxiliary selected the following delegates to the Annual Meeting of the Woman's Auxiliary of the American Medical Association, June 8-12, at Atlantic City: Mrs. Curtiss; Mrs. Osborn; Mrs. Purdy; Mrs. H. A. Coleman, New Philadelphia;

Mrs. C. I. Stafford, Oxford; Mrs. W. W. Green, Toledo; Mrs. D. A. Wiener, Deshler; Mrs. C. W. Kirkland, Bellaire; Mrs. L. H. Martin, Ashland; Mrs. P. J. Sauvegeot, Akron; Mrs. R. S. Fidler, Columbus; Mrs. E. J. McCormick, Toledo; Mrs. Harry V. Paryzek, Cleveland; Mrs. M. D. McCutchen, East Liverpool; Mrs. James F. Lee, Mt. Vernon; Mrs. Charles Way, Cleveland; Mrs. S. P. Hunt, Portsmouth. It was voted that any delegate finding that she cannot attend the meeting be empowered to select her own alternate.

In turning over the gavel to the incoming President, Mrs. Osborn, the retiring President, Mrs. Curtiss asked for continued interest and support of the Auxiliary to insure its future prosperity and progress. Mrs. H. M. Clodfelter, Columbus, the retiring Vice-President, presented Mrs. Curtiss with a silver vegetable dish as a remembrance from the Auxiliary for the progress made during her term of office.

Mrs. Osborn announced the appointment of the following chairmen of standing committees which had been approved by the Board of Directors: Publicity, Mrs. J. W. Calhoon, Uhrichsville; Historian, Mrs. George M. Wilcoxon, Alliance; Hygeia, Mrs. C. I. Stafford, Oxford; Program, Mrs. R. S. Fidler, Columbus; Legislation, Mrs. David W. Heusinkveld, Cincinnati; Public Relations, Mrs. S. L. Meltzer, Portsmouth; Organization, Mrs. J. L. Stevens, Mansfield, the President-Elect.

RESOLUTION OF APPRECIATION

On motion of Mrs. Purdy, chairman of the Resolutions Committee, the following resolution was unanimously adopted:

"Whereas, the Woman's Auxiliary to the Ohio State Medical Association in convention assembled has been the recipient of great courtesy,

Be It Resolved, that the Woman's Auxiliary express its sincere appreciation to those who have offered this fine hospitality; to Mrs. Ralph W. Hoffman, general chairman, and her committee; to the Woman's Auxiliary to the Columbus Academy of Medicine for its general hospitality; to the Deshler-Wallick Hotel for the courtesy extended to our officers and members as guests; and to our gracious President, Mrs. W. W. H. Curtiss, and to her officers and chairmen, who have contributed so much to this successful year."

At the luncheon meeting which followed adjournment of the House of Delegates, Viva Boothe, Ph.D., Director of the Bureau of Business Research, Ohio State University College of Commerce, gave a very interesting and helpful talk on "The War and Your Pocketbook". Later in the afternoon, the F. & R. Lazarus Company presented a style show.

An additional feature of this year's meeting of the Auxiliary was the fine display of exhibits arranged by Mrs. R. S. Fidler, Columbus. They included: "How to Gear Your Community to Better Health", by the Bureau of Public Education, Ohio State Medical Association; "Heroes of American Medicine", by the American Medical Association; "A Community Health Education Project", by the Cleveland Health Museum, "Hygeia", by the American Medical Association and a number of posters prepared by local auxiliaries.

Attorney General Rules on Medical Supervision of School Children

An interpretation of the general powers granted to boards of education and boards of health governing the medical supervision of school children is contained in Opinion No. 5019, issued by Attorney-General Thomas J. Herbert, May 5. Syllabus of that opinion follows:

1. Under the broad powers extended to boards of education by Section 4750, General Code, to make rules and regulations for the government of pupils in the schools in their respective districts and to teachers by Section 7707, General Code, to guard the health and physical welfare of pupils in their schools and to maintain good discipline over all the pupils under their charge, the said school authorities may take such steps as are reasonably necessary to eliminate from schools under their jurisdiction pupils infested with head lice, subject to the limitations contained in Section 7685, General Code, as to suspension and expulsion of pupils from school.

2. Where there are children in a public school who are infested with head lice, and the school authorities in charge of the school fail to act in the premises, the board of health of the health district in which the school is located may by virtue of Section 4424, General Code, and cognate sections, make such reasonable orders within other provisions of law as are necessary to correct the condition, and it is the duty of the board of education charged by law with the administration of the school to carry out any orders so made by the board of health.

3. Children who are wards of a Juvenile Court are subject to all laws and reasonable rules and regulations lawfully made in good faith by school and health authorities affecting their attendance in the public schools as are children who are not wards of the court.

4. Rules and regulations made by school authorities and health authorities respecting the health, general welfare and discipline of pupils in the public schools within their respective jurisdictions if lawful, reasonable, and made in good faith, are not reviewable by the courts.

Columbus—Dr. Floyd M. Green has been appointed medical director of the Columbus Mutual Life Insurance Company.

Tire and Auto Rationing Rules Applying to Physicians Analyzed; Doctors Given Preferred Status But Warned "Not to Kill the Goose That Laid the Golden Egg"

APPRECIATING the preferred status which is theirs in the nation-wide rationing program of tires and automobiles, most Ohio physicians are conscientiously cooperating with the local tire and automobile rationing boards.

However, some exceptions have been reported —a few due to misunderstanding on the part of physicians and a few due to an unreasonable attitude on the part of the physicians involved.

To be perfectly frank about the matter, members of the medical profession should realize that they are in a preferred class in the rationing program and should do nothing which will "kill the goose that laid the golden egg."

TIRE REGULATIONS

Requested by the Ohio State Medical Association for an interpretation of the section of the Tire Rationing Regulations pertaining to the replacement of tires to vehicles operated by physicians, Inwood Smith, director, Tire Rationing, of the Ohio State Rationing Administration, Office of Price Administration, has issued the following statement:

"Section 405 (a) of the regulations states: 'Certificates authorizing the purchase or acceptance and delivery of tires and tubes may be granted to equip a vehicle which is operated by a physician or visiting nurse, or a farm veterinary and which is used principally for the purpose of making regular calls outside their offices and who need and use their motor vehicle for the purpose of making these calls.'

"In most instances we leave the matter of determining whether or not the vehicle is used for this purpose up to the local rationing board having jurisdiction and their decision is based upon the statements made by the applicant and their knowledge of the applicant's past practices.

IN CASES OF TWO AUTOS

"The question which arises when a physician has two or more cars has caused considerable confusion. The regulations definitely state that 'if the applicant owns, operates or controls passenger automobiles equipped with serviceable tires or tubes other than the passenger automobile for which new tires or tubes are requested, he must show that all such vehicles capable of being employed for the purposes for which tires are sought are fully employed by one or more of the eligible purposes as outlined in the regulations.'

"If an applicant fails to establish that fact, he fails to establish that he needs tires or tubes for purposes listed in these regulations and he must be denied a certificate. **This means that when a physician owns two cars, one of which it has been his practice to use in making professional calls, and the other he has reserved for family use, tires cannot be secured for his business car until after he has used the family car to the extent that the tires thereon are no longer suitable.** Although at first glance, this seems rather drastic, actually it is only reasonable that eligible applicants be asked to use the rubber on any cars in their possession before they are issued a replacement supply of tires.

"Amendment No. 7 to the Revised Tire Rationing regulations states that all List A **applicants must accept recapped tires or recapping services providing their tires are in suitable condition for such recapping job.** Effective May 1, this means that physicians who formerly were compelled to accept new tires under the regulations now must be satisfied with recapping services, providing their tires are in condition to handle them.

RECAPPING REQUIRED

"The regulations state that any applicant whose tires are put into a condition unsuitable for recapping due to negligence on the part of the operator, such as driving the car for a considerable length of time after recapping was necessary, can be denied replacement tires of any type, despite the fact that he otherwise would be eligible. For this reason, **physicians should apply to their rationing board for recapping certificates when the tread on their tires is worn smooth.**

"Applications for either new tires or recapping services must be made to the local board having jurisdiction over the community in which that vehicle is normally garaged. Application forms will be provided by the board and if necessary, the board may request the applicant to appear before them in order to clarify any statements which he may have made in his application. If the application is favorably acted upon by the board, a certificate will be issued providing the board has the necessary quota available.

"Our rationing boards work on a very strict quota basis and absolutely are not allowed to exceed their quota in any one month. This means that in many cases approved applications must be held up for a period of from two to three weeks until the board has sufficient quota to cover the certificate which will be issued."

It is recommended that all physicians study the foregoing statement carefully and do everything possible to comply with the regulations. These points should be realized: **(1) There is a**

definite shortage of tires; (2) a rationing board is given a quota and cannot exceed it; (3) physicians have been placed in a preferred classification and will continue to receive preferred treatment as long as they do not abuse the privileges granted them.

RULE ON AUTOS QUOTED

Under Sections 701-2 of the New Passenger Automobile Regulations of the Office of Price Administration, as amended effective April 29, certificates authorizing the purchase of new passenger automobiles may be granted by local rationing boards to physicians, surgeons and farm veterinarians "whose professional practice requires regular calls outside their offices, who must use the automobile to make their professional calls, and who will use it principally for that purpose."

To obtain such a certificate, a physician must furnish proof of both his need for a car and the inadequacy of the car of which he now has the use. Proof of inadequacy of the car of which applicant has the use, is established if any of the following is shown:

(1) The automobile is a 1939 or earlier model,

(2) Or, it has been driven more than 40,000 miles,

(3) Or, it has been rendered unserviceable by fire, collision or otherwise,

(4) Or, it is not sufficiently reliable considering the nature of his services and the circumstances of its use,

(5) Or, demands upon the applicant for specified services or his responsibilities for rendering such services have increased to such an extent that he needs an additional automobile to render such services.

DECISION UP TO LOCAL BOARD

On the question of whether a physician owning two automobiles, one for professional and the other for family use, can obtain a certificate authorizing him to purchase a new automobile, Clyde C. McBee, director, Auto Rationing, Ohio State Rationing Administration, Office of Price Administration, has stated that **the decision would rest with the local automobile rationing board, which has discretionary power.** The Board's decision would depend on the ability of the physician to show proof of necessity for a new car, proof of the inadequacy of the automobile transportation which he had available at the time he makes application for a certificate, and the quota of new cars available for sale that month in the county where the application is made.

Any applicant for a new passenger automobile whose application has been denied by the Board and who believes that such action is in conflict with the regulations, may file an appeal from such action with the State Rationing Administrator.

News Notes

Akron — The Doctor's Symphony Orchestra recently presented its 100th concert.

Hanoverton—Members of the family of Dr. H. J. Pelley honored him with an "Open House" recently on the 50th anniversay of his entrance into the practice of medicine. Over 175 friends and relatives were present.

Ashtabula—Dr. R. B. Wynkoop has been appointed acting city health commissioner succeeding Dr. H. A. Tagett, now on active duty as a lieutenant in the Medical Corps of the U. S. Navy.

Circleville—New members of the Pickaway County Board of Health include Dr. A. F. Kahler, New Holland, and Dr. G. R. Gardner, Ashville.

Columbus—Dr. Thomas F. Ross has been appointed medical director of the Ohio State Life Insurance Company.

Conneaut—Dr. John H. Mowry has been reappointed city health commissioner.

Dayton—Dr. Merrill D. Prugh is the new chairman of the Council of Social Agencies, succeeding Dr. Sherl J. Winter.

Geneva—Dr. F. C. Smith recently completed his 47th year in the active practice of medicine in Ashtabula County.

Greenfield—"The Prevention and Spread of Communicable Diseases", was the subject discussed by Dr. E. J. Tulleys at a P.T.A. meeting.

Marion—Uses of sulfanilamide and its derivatives were discussed by Dr. Richard T. Morgan at a meeting of the Forest Lawn P.T.A. His topic was "The Wonder Drug".

Middletown—Dr. E. T. Storer was guest speaker at a meeting of the Franklin Rotary Club.

Montpelier—Medical and surgical techniques being used in the present war were described by Dr. H. J. Luxan at a meeting of the Delta Community Service Club.

Newark—"Contributions of Americans to Medical Science and Surgical Skill", was the topic discussed by Dr. Homer J. Davis at meeting of the Licking County Agrarian Club, at Pataskala.

Norwood—Dr. William R. Chambers spoke on "The Practice of Medicine During War Times", at a meeting of the Y Men's Club.

Ravenna—Dr. B. H. Nichols was re-elected president of the staff of Robinson Memorial Hospital. Other officers are Dr. John M. Painter, Kent, vice-president, and Dr. R. D. Worden, Ravenna, secretary.

Xenia—Fourth expansion of McClellan Hospital since it was erected in 1921 began recently. The office building is being remodeled to enlarge the waiting rooms, examination and treatment rooms and the laboratory.

Ohio Physicians Will Take Prominent Part in Sessions Of A. M. A. Meeeting at Atlantic City, June 8 to 12

ATLANTIC CITY will be the medical capital of the Western Hemisphere June 8-12, when medical authorities from North, Central and South America will present the latest technics in diagnosis and treatment, at the Ninety-Third Annual Session of the American Medical Association.

The meeting will get under way with the convening of the House of Delegates at 10 A. M., Monday, June 8, in the American Room of the Hotel Traymore. The general scientific meetings will start at 2 P. M., Monday in the Ball Room at Convention Hall and will continue through Tuesday.

The opening general meeting will be held at 8 P. M., Tuesday in the Ball Room on the second floor of Convention Hall and the 16 scientific sections of the Association will start their programs on Wednesday. Dr. Fred W. Rankin, Lexington, Ky., now on active duty as a Colonel in the Medical Corps of the U. S. Army, who will succeed Dr. Frank H. Lahey, Boston, as President of the Association at the opening general meeting, Tuesday evening, will be honored with a reception and ball to be held Thursday evening, June 11 at 9 o'clock.

SECTIONS OPEN WEDNESDAY

Section meetings will be held Wednesday, Thursday and Friday, June 10, 11 and 12. The following sections will convene at 9 A. M. each day: Surgery, General and Abdominal; Ophthalmology; Pediatrics; Experimental Medicine and Therapeutics; Nervous and Mental Diseases; Dermatology and Syphilology; Gastro-Enterology and Proctology; Radiology; Miscellaneous Topics —Sessions on General Practice and a Session on Legal Medicine.

Convening at 2 P. M. each day will be the following sections: Practice of Medicine; Obstetrics and Gynecology; Laryngology, Otology and Rhinology; Pathology and Physiology; Preventive and Industrial Medicine and Public Health; Urology; Orthopedic Surgery; Anesthesiology.

Innovations in this year's section program include the sessions on Wednesday and Thursday mornings on General Practice, and the session on Legal Medicine Friday morning.

The center of activities for the meeting will be the Municipal Convention Hall, the world's largest, which has proved such a fine setting for past conventions. Covering an area of seven acres, it is 350 feet wide and 650 feet deep, and the main auditorium has a seating capacity of 41,000. Facilities of this splendid building are such that all of the scientific and section meetings will be held there in rooms immediately adjacent to the Scientific and Technical Exhibits.

Registration headquarters will be located in the north end of Technical Exhibition Hall. Members of the House of Delegates will register at the Hotel Traymore.

ONLY FELLOWS MAY REGISTER

Only Fellows, Affiliate, Associate and Honorary Fellows and Invited Guests may register for the Scientific Assembly. Fellows of the A. M. A. are those who have, on the prescribed form, applied for fellowship, and paid their fellowship dues for the current year. Fellowship dues and subscription to *The Journal of the A. M. A.* are included in the one annual payment of $8, which is the regular subscription price of *The Journal*. Fellowship cards are sent to all Fellows after payment of annual dues, and these cards should be presented at the registration window. Any who have not received cards for 1942 should se-

Don't Drive to Atlantic City; Gasoline Not Available!

PHYSICIANS who had planned to drive to Atlantic City to the Annual Session of the American Medical Association are advised to change their plans and to use some other means of transportation.

Just as this issue of *The Journal* was going to press, the following telegram was received from Dr. Olin West, secretary of the American Medical Association:

"Official information from Washington this morning (May 22) is that gasoline WILL NOT be available in restricted areas for physicians who wish to drive to Atlantic City session."

This additional word of caution also is submitted: Physicians going to the meeting by train, bus or air should get their tickets immediately as the entire transportation situation is becoming acute and those who wait until the eleventh hour may find themselves out of luck.

cure them at once by writing to the American Medical Association, 535 North Dearborn St., Chicago. Members of the Ohio State Medical Association who are not Fellows of the A. M. A., and who wish to attend the Atlantic City session, will be permitted to register upon presentation of their 1942 membership card in the State Association and upon the signing of an application for Fellowship in the A. M. A.

The official program for the Atlantic City session appeared in the May 2 issue of *The Journal of the A. M. A.,* pages 37-87, and reports of officers of the Association were published in the April 25 issue, pages 1459-1500.

OHIO PARTICIPANTS

The Ohio State Medical Association will be represented in the House of Delegates by Dr. Barney J. Hein, Toledo; Dr. Parke G. Smith, Cincinnati; Dr. William M. Skipp, Youngstown; Dr. George A. Woodhouse, Pleasant Hill; Dr. John B. Alcorn, Columbus; Dr. Harry V. Paryzek, Cleveland; Dr. Carl R. Steinke, Akron.

Dr. Clyde L. Cummer, Cleveland, member of the Committee on Scientific Assembly of the A. M. A., is a member of the House of Delegates, representing the Section on Dermatology and Syphilology.

Other Ohio physicians who will participate in the activities of the session as members of important standing committees of official agencies are: Dr. Geo. Edw. Follansbee, Cleveland, chairman of the Judicial Council: Dr. Russell L. Haden, Cleveland, member of the Council on Medical Education and Hospitals; Dr. Torald Sollmann, Cleveland, chairman, and Dr. H. N. Cole, Cleveland, member of the Council on Pharmacy and Chemistry; Dr. Tom D. Spies, Cincinnati, member of the Council on Foods and Nutrition.

Officers of scientific sections include the following Ohioans: Dr. Roy W. Scott, Cleveland, chairman, Section on Practice of Medicine; Dr. Derrick Vail, Cincinnati, secretary, Section on Ophthalmology; Dr. Carl J. Wiggers, Cleveland, member of executive committee, Section on Pathology and Physiology; Dr. James A. Dickson, chairman, Section on Orthopedic Surgery; Dr. John T. Murphy, Toledo, secretary, Section on Radiology.

Ohio physicians scheduled to take part in scientific sessions as speakers or discussants include: Dr. Scott, Dr. Dickson, Dr. Thomas E. Jones, Dr. U. V. Portmann, Dr. Fred W. Dixon, Dr. Myron F. Metzenbaum, Dr. Howard T. Karsner, Dr. Benjamin S. Kline, Dr. John E. Rauschkolb, Dr. C. Glenn Barber, Dr. John P. Quigley, Dr. V. C. Rowland, Dr. Samuel R. Gerber, Cleveland; Dr. Fred M. Douglass and Dr. K. C. McCarthy, Toledo; Dr. Spies, Dr. A. R. Vonderahe, Dr. Parke G. Smith, Dr. Albert B. Sabin, Cincinnati; Dr. George M. Curtis and Dr. C. W. McGavran, Columbus; Dr. Fowler B. Roberts, Akron.

Among those participating in the Scientific Exhibit are the following Ohio physicians: Dr. Ralph M. Watkins, Cleveland; Dr. Donald J. Lyle, and Drs. Willard Machle, E. W. Scott and E. J. Largent, Cincinnati; Dr. F. M. Douglass and Dr. T. L. Ramsey, Toledo; Drs. Emmerich von Haam, A. F. Prebus and Mary Schuh, Columbus.

Motion pictures will be shown continuously throughout the week in four motion picture theaters adjoining the exhibits. Included are films by Dr. George Crile, Jr., Cleveland, and Dr. Samuel Iglauer, Cincinnati.

Features of the Scientific Exhibit include two special exhibits, on fractures and backache. Among those scheduled to assist as demonstrators in the exhibit on fractures are: Dr. C. Glenn Barber, and Dr. Samuel L. Robbins, Cleveland; Dr. P. C. Doran, Akron; Dr. Ralph G. Carothers, Cincinnati; Dr. James R. Tillotson, Lima, and Dr. Judson D. Wilson, Columbus. (Dr. Wilson is now on active duty as a Lieutenant-Commander in the Medical Corps of the U. S. Navy). The committee in charge of the special committee on backache includes Dr. Theodore A. Willis and Dr. Walter J. Zeiter, Cleveland, and Dr. E. Harlan Wilson, Columbus. Among the demonstrators are: Dr. James A. Dickson, Dr. Louis E. Papurt and Dr. Barber, Cleveland; Dr. Albert L. Bershon, Toledo; Dr. Joseph A. Freiberg, Cincinnati; Dr. H. Worley Kendell, Dayton; Dr. Fowler B. Roberts, Akron.

SPECIAL MILITARY EXHIBITS

There will also be special exhibits by the Army, Navy, Public Health Service, Selective Service and other branches of the Federal Government. Lectures and demonstrations on poliomyelitis and diabetes will be given continuously throughout the week in two theatres adjoining the exhibits.

Active in arranging the Scientific Exhibit were Dr. Derrick Vail, Cincinnati, member of the section exhibit committee of the Section on Ophthalmology; Dr. Fred W. Dixon, Cleveland, representative to the Scientific Exhibit from the Section on Laryngology, Otology and Rhinology; Dr. Paul A. Davis, Akron, representative to the Scientific Exhibit from the Section on Preventive and Industrial Medicine and Public Health.

WOMAN'S AUXILIARY

Headquarters of the Woman's Auxiliary to the American Medical Association will be at Haddon Hall. All women who are members of the Auxiliary or guests of physicians attending the annual session are cordially invited to participate in all social functions and to attend the general sessions. Whether auxiliary members or not, wives of physicians will be most welcome. Among the officials of the Auxiliary are Mrs. Fred C. Oldenburg, Cleveland, a director, and Mrs. J. E. Purdy, Canton, chairman of the committee on supplies.

GOLF TOURNAMENT

The American Medical Golfing Association will hold its twenty-eighth annual tournament at the Seaview Country Club, Atlantic City, Monday, June 8. Forty trophies and prizes will be awarded.

Officers of the Association include Dr. John B. Morgan, Cleveland, vice-president. Among the living past-presidents are Dr. Thomas Hubbard, Ashtabula, and Dr. Charles Lukens, Toledo. Members total 1,651, representing every state in the Union.

All male Fellows of the American Medical Association are eligible and cordially invited to become members of the American Medical Golfing Association. Write Executive Secretary Bill Burns, 2020 Olds Tower, Lansing, Michigan, for an application blank. Participants in the American Medical Golfing Association tournament are required to present their home club handicap, signed by the club secretary, at the first tee on the day of play. No handicap over thirty is allowed. Only Active Fellows of the American Medical Golfing Association may compete for prizes. No trophy is awarded a Fellow who is absent from the annual dinner.

Narcotic License Renewal Due by July 1; Special Advice Offered to Physicians Entering Military Service

Every physician wishing to prescribe or dispense narcotic drugs must register with the Collector of Internal Revenue of his district and pay the Federal Narcotic Tax of $1.00 on or before July 1 annualy. Initial applications may be made at any time, but existing permits must be renewed on or before July 1.

Application for re-registration must be made on Form 678, with the physician's signature either acknowledged by two qualified witnesses or sworn to by a notary public or an official of the internal revenue department. The number of the physician's license to practice medicine in Ohio must be noted on this form. The registration number assigned by the Department of Internal Revenue is retained from year to year. Remittance accompanying the application must be in the form of a postal money order or a certified check.

INVENTORY AND PENALTIES

The application must be accompanied by an inventory on Form 713, of the narcotic drugs on hand in the physician's office. Regardless of the quantity of drugs on hand, this inventory must be sworn to by a notary public or an official of the internal revenue department.

During the last week of May copies of these forms were mailed to each Ohio physician already registered, with brief instructions covering the procedure to be followed in applying for a renewal of his license. **Failure to comply with these regulations on or before July 1 adds a penalty to the tax when it is paid, and a physician who registers late, and who has prescribed or dispensed narcotic drugs during the interval within which his registration has lapsed, is liable to a fine of not more that $2,000, or imprisonment for more than five years, or both.**

Physicians who administer, dispense or prescribe cannabis, must obtain a special permit and re-register annually on or before July 1, with the Collector of Internal Revenue of his district, and pay a tax of $1.00.

WARNING TO THOSE IN SERVICE

All physicians who expect to discontinue their regular practice for the purpose of entering military service should advise the District Collector of Internal Revenue in ample time to receive and comply with instructions relative to discontinuing narcotic registration.

Activity in any medical unit of the armed forces requires no registration under the Harrison Narcotic Act, as amended. **A physician entering military service who wishes to discontinue registration under the Harrison Narcotic Act should do so by submitting, in duplicate, a list of drugs on hand, to the District Collector of Internal Revenue, together with the name of a person or firm registered under the Harrison Act, who would be willing to take the drugs into their stock.** If such person or firm is found qualified by the collector's office, permission will be granted to dispose of the drugs accordingly. If a registrant has no narcotic drugs on hand, he may discontinue registration by notifying the district collector that he is entering military service and stating that he has no drugs on hand. **Any registrant discontinuing registration should return all unused order forms on hand for cancellation to the office of the collector who issued them**

Cincinnati—Dr. Henry M. Goodyear, associate professor of otolaryngology, University of Cincinnati College of Medicine, addressed the Western Pennsylvania Eye, Ear, Nose and Throat Society at Latrobe, Pa., May 21, on "Practical Considerations of Value in the Practice of Otolaryngology".

New Concord—Dr. John M. McCleery, president of the Ohio Student Health Association, has been appointed to two national committees on student health. They are environment hygiene and war health.

Columbus—Dr. Ruth H. St. John will begin a year's special work in endocrinology at Wisconsin General Hospital, Madison, July 1.

WAR NOTES

A number of Ohio physicians were last reported on Bataan and Corregidor and are now thought to be prisoners of the Japanese. Among them are: Maj. James H. Bahrenburg, Capt. Ralph E. Hibbs, Capt. Neil M. Burr, Capt. Julien M. Goodman, Capt. Arch Oldaker, Lt. John W. Haines, and Lt. Joseph D. Vande Velde, all of Cleveland; Capt. Mark G. Herbst, Canton; Lt. George W. Campbell, Columbus; Capt. John Marsico, Elyria; Lt. Webster C. Syers, Dayton; and Capt. W. Frederick Bartz, Woodville.

Capt. Hibbs wrote, in a letter dated Feb. 15 and smuggled from Bataan by submarine:

"Living is not too bad. I have a bamboo bed on the ground, a blanket, plenty of water and a few too many mosquitoes, snakes, and ants. Fair food, including rice, mule, caribou, monkey, and a piece of beef occasionally."

* * *

Dr. Henry S. Houghton, father of Dr. Ben Houghton, of the surgical research staff at Ohio State University College of Medicine, is in Japanese custody. Former director of Peiping University College of Medicine, Peiping, China, he was taken when the Japanese closed that institution.

Dr. Frank E. Whitacre, whose family lives in Sylvania, Ohio, is another former medical educator from Peiping who is a prisoner of the Japs. He was head of the department of obstetrics and gynecology at Peiping Union Medical College and is now interned in Manila, where he had been evacuated some months ago.

* * *

Dr. and Mrs. Leslie M. Lisle, Columbus, were recently notified by Canadian officials of the death in action of their son, Sgt. John B. "Jack" Lisle, Royal Canadian Air Force pilot. No details were given in the message. Dr. Lisle last heard from his son from Cairo, Egypt.

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Maj. Paul N. Ivins, Hamilton, Army medical corps officer, has arrived safely in Australia, according to dispatches from "down under".

* * *

Letters to their families from Ohio Army medical officers with a hospital unit in Australia indicate that they are enjoying the hospitality and friendliness of the people, the food, and the unusual sights. According to an article in the Cleveland Press, these physicians have written their wives that they are most impressed by the strange new kind of coffee they are drinking, the exotically different flowers, and the sincere courtesy of the "Aussies". Typical of the experiences proving how welcome they are is the story of one Cleveland doctor who stopped a woman on the street to inquire where he might find a laundry. Instead of directing him, she took his bundle of clothing home and washed it herself.

* * *

"Perhaps it's hard to realize in the United States", writes International News Service Correspondent Lee Van Atta from Australia, "that a glorious battle is being fought by the U.S. Medical Corps and by medical science. Every life is precious, and every life is fought for with grim determination by some of America's finest doctors. In addition to men who have been wounded in battle, there are men who are just worn out, after fighting beyond human endurance. The first will be made whole again. The latter will be given the rest and care they need. The army is giving its officers and men wonderful care. The bare, bomb-rocked wards of the last war will not be repeated. The new medical war science calls for psychological as well as surgical treatment". A considerable number of Cleveland physicians are with the Army in Australia.

* * *

Dr. Charles D. Slagle, Centerville, is proud of the service his four sons are rendering to the nation's war effort. One son, Lt. George W. Slagle, is a Navy medical officer attached to the Marine Corps at Parris Island, N.C. Another son, Dr. W. L. Slagle, Dayton, is serving as an examiner for the Selective Service System. A third, Second Lt. Russell B. Slagle, is in the Army quartermaster's corps, and a fourth, Charles R. Slagle, is a chief petty officer in the Navy's athletic and physical recreation program. The elder Dr. Slagle is a veteran of World War I and holds a commission as lieutenant colonel in the Army reserve medical corps.

* * *

Any Army reserve officer who has been disqualified for active duty only because of a correctable physical defect and who fails to have that defect corrected in a reasonable time or states that he does not intend to do so will be discharged from the service, according to a recent War Department announcement. This policy does not apply to reserve officers disqualified because of a defect that is not correctable. Such officers will be separated from the service only by resignation.

In Memoriam

Alva M. Ashcraft, M.D., Leesville; Baltimore Medical College, 1903; aged 62; former member of the Ohio State Medical Association and the American Medical Association; died April 29. Dr. Ashcraft practiced in Leesville for 22 years. He was a member of the Masonic Order and the Jehovah Witnesses Church. His widow, a son and three brothers survive.

David Llewellyn Dial, M.D., Concord, N. H.; Western Reserve University School of Medicine, 1931; aged 34; died April 20. Dr. Dial had been head of the neuro-pathology department at the New Hampshire State Hospital for the past five years. Surviving are his widow, his mother, three brothers—Dr. Robert J. and Dr. Ralph S. Dial, Cleveland, and Dr. Donald E. Dial, New York, and a sister, Dr. Elizabeth D. Spreng, Cleveland.

Henry Philip Diekmeier, M.D., Cincinnati; Miami Medical College, Cincinnati, 1895; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died April 2. Dr. Diekmeier practiced in Cincinnati for 42 years. Surviving are his widow, three sisters and a brother.

George Frederick Glass, M.D., Cleveland; College of Physicians and Surgeons, Baltimore, 1896; aged 74; died April 27. Dr. Glass retired from active practice several years ago to take over active direction of the Ohio Bronze Power Company of which he was one of the founders and its first and only president. During World War I Dr. Glass was a major in the Medical Corps of the U. S. Army and saw service in France. His widow, a son, a sister and two brothers survive.

Lawrence Chamberlain Grosh, Jr., Toledo; Johns Hopkins University School of Medicine, Baltimore, 1930; aged 38; member of the Ohio State Medical Association and the American Medical Association; died April 17. Dr. Grosh had practiced in Toledo for four years. He was previously an assistant physician on the staff of the Ypsilanti, Mich., State Hospital. Surviving are his widow, a son, his parents— Dr. and Mrs. L. C. Grosh, Sr., and a sister.

Charles Huber, M.D., Harrison; Medical College of Ohio, Cincinnati, 1881; aged 88; died April 4. Believed to be the oldest alumnus of the University of Cincinnati College of Medicine, Dr. Huber practiced in Harrison for 60 years. He was the first physician in the western part of Hamilton County to use a fever thermometer and a hypodermic needle. Active in the affairs of his community he had been a member of the board of education, township clerk, member of the village council, and at the age of 80 was elected mayor of Harrison, serving from 1935 to 1937. Dr. Huber was treasurer of the St. John's Evangelical Protestant Church for 37 years and early in April received a gold pin from the Odd Fellows Lodge as a token of his 60 years of membership. Five sons and four daughters survive.

Thomas Richard Kennerdell, M.D., Cleveland; Western Reserve University School of Medicine, 1909; aged 59; died April 22. Dr. Kennerdell practiced in Cleveland for over 30 years. During World War I he was a captain in the Medical Corps of the U. S. Army. Dr. Kennerdell was a member of the Masonic Order and Beta Theta Pi fraternity. His widow, two brothers and a sister survive.

Irwin Hiram LeBarre, M.D., Mansfield; Medical Faculty of Trinity University, Ontario, 1897; aged 68; died April 15. Dr. LeBarre practiced in Windsor and Lexington until, 1907, when he located in Mansfield. He was a member of the Odd Fellows, the Owls and the Episcopal Church. His widow, two sons, two sisters and a brother survive.

Frank S. Merwin, M.D., Youngstown; Western Reserve University School of Medicine, 1893; aged 74; member of the Ohio State Medical Association and the American Medical Association; died May 10. Dr. Merwin practiced in Youngstown for nearly 50 years. A brother survives.

Stanley B. Minish, M.D., Carrollton, Ky.; University of Cincinnati College of Medicine, 1940; aged 29; died April 1. Dr. Minish had practiced in Carrollton for nearly one year, having located there after completing internship at Christ Hospital, Cincinnati. His parents survive.

Roy Lyon Pierce, M.D., Mt. Gilead; Ohio Medical University, Columbus, 1896; aged 74; member of the Ohio State Medical Association and the American Medical Association; died May 3. Health commissioner of Morrow County since 1921, Dr. Pierce had previously been in private practice there for 25 years. He was one of the organizers and a past-president of the Morrow County Medical Society, and for the past 16 years had been its treasurer. Dr. Pierce was a member of the Masonic Order and the Methodist Church. His widow and a daughter survive.

Benjamin Charles Pilkey, M.D., Huron; College of Physicians and Surgeons, Baltimore, 1896; aged 75; died April 24. After 11 year's practice in Stark County, Dr. Pilkey located in Monroeville in 1907, where he practiced for 19 years.

He was health commissioner of Huron County for 18 years, retiring in 1938. During World War I, Dr. Pilkey was a first lieutenant in the Medical Corps of the U. S. Army. He was a member of the Presbyterian Church, the Masonic Order and the American Legion. Surviving are his widow, twin daughters, a son and a sister.

Arthur Carr Roll, M.D., Columbus; Pulte Medical College, Cincinnati, 1889; aged 74; died May 10. Dr. Roll practiced medicine in Toledo for 25 years before locating in Columbus in 1911. He retired about 15 years ago. His widow, a daughter, a son and a sister survive.

Edward James Ross, M.D., Cincinnati; Meharry Medical College, Nashville, Tenn., 1921; aged 46; died May 11. A native of Cincinnati, Dr. Ross had practiced there for nearly 20 years. He was a member of Kappa Alpha Psi Fraternity and the Baptist Church. His mother and a son survive.

Louis J. Smith, M.D., Cleveland; Western Reserve University School of Medicine, 1887; aged 78; died April 3. Dr. Smith practiced on the West Side of Cleveland for the past 45 years. He was a Mason. His widow, a sister and three daughters survive.

Leo Wolfenstein, M.D., Cleveland; University of Wooster, Medical Department, 1906; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 3. Dr. Wolfenstein had practiced in Cleveland for 35 years, and was formerly head of the eye department at Mt. Sinai Hospital. Surviving are a daughter, two sons, and a sister.

Paul Best Yates, M.D., Columbus; Ohio State University College of Medicine, 1935; aged 41; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 26. Dr. Yates was assistant professor of anatomy at the Ohio State University College of Medicine and had practiced in Columbus for six years. He was a member of the Masonic Order, Phi Chi and Sigma Phi Epsilon fraternities. His widow, four sons, a sister, his mother and two brothers survive.

The former Cunningham Sanitarium—Cleveland's steel globular hospital erected 14 years ago for the treatment of diabetic patients under air pressure—has been dismantled. The five-story steel ball, 54 feet in diameter and containing 40 rooms and baths, cost $1,000,000 in 1928. Its demolition furnished 1,000 tons of scrap steel, at a salvage value of about $25,000.

Richwood—Dr. F. M. Wurtsbaugh is the new health commissioner of Union County.

American Red Cross Sends Drugs, Medical Supplies to Russia

Drugs, medical supplies and clothing valued at more than $3,500,000 have been sent to the U.S.S.R. by the American Red Cross in recent months, it has been announced. Additional shipments are now being prepared, and it is anticipated that the amount of relief furnished will be approximately doubled within the near future.

Included among the drugs were 1,000,000 sulfapyridine, 4,000,000 sulfanilamide, and 1,500,000 quinine tablets, as well as 1,000 pounds of iodine. Among hospital supplies were 1,000,000 hypodermic needles, 200,000 hot water bags, 295,000 pairs of surgical gloves, 20,000 tourniquets, 60,000 syringes, 850,000 forceps, 100,000 rolls of adhesive plaster, 36,000 two- and three-inch bandages, and X-ray equipment valued at $270,000. Shipments have also included 2,626,000 pounds of laundry and toilet soap, while 100 tons of surgeon's green soap are to be forwarded shortly.

Approximately 500,000 garments for men, women, and children, in addition to shoes and blankets, have also been sent to Russia. Additional shipments of a like amount of garments are now being prepared.

The list of medical supplies needed in Russia was drawn up in conferences between representatives of the Union of Red Cross and Red Crescent Societies and members of the American Red Cross and the British Red Cross who accompanied the official governmental missions of Great Britain and the United States to the U.S.S.R. last fall.

A.M.A. Directory Delayed

There will be an unavoidable delay in the issuance of the 1942 American Medical Directory because of the large number of changes of address of physicians and the difficulty of maintaining necessary office personnel, according to a recent announcement in *The Journal of the A.M.A.* The new edition will appear about September 1 rather than in June or July as in previous years.

An all-time low in Cleveland's maternal death rate and a continued low rate of infant deaths were recorded during 1941, Dr. Richard A. Bolt revealed in his 13th annual director's report to the Cleveland Child Health Association. The city's rate of 7.2 maternal deaths per 1,000 live births in 1931 dropped to 2.5 last year. Infant deaths numbered 35 per 1,000 live births in 1941.

Youngstown—Dr. Earl H. Young has been elected to the local board of education, of which Dr. Harry E. Patrick, a member of the board since 1934, is president.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

CLINTON

The Clinton County Medical Society held its regular monthly meeting, May 5, at the General Denver Hotel, Wilmington. The meeting was devoted entirely to a discussion and outline of plans for civilian defense and medical preparedness by Dr. R. W. DeCrow and Dr. Robert Conard, chairman of the respective committees.—James E. Rose, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during May:

May 5—"Treatment of Arterial Hypertension with Potassium Thiocyanate", Dr. J. Harold Kotte; "The Diagnosis and Treatment of Bromide Intoxication", Dr. Philip Piker.

May 19—Program under the auspices of the Nutrition Council of the Cincinnati Public Health Federation. "The Organization and Work of the Hamilton County Nutrition Committee", Dr. Robert C. Rothenberg; "The Role of a Department of Medicine in the Propaganda for Diet Reform", Dr. M. A. Blankenhorn director, department of internal medicine, University of Cincinnati College of Medicine; "The Scientific Background for the National Nutrition Program", Dr. William Bean, assistant professor, department of internal medicine, University of Cincinnati College of Medicine.—Bulletin.

HIGHLAND

The Woman's Auxiliary to the Highland County Medical Society met at the Highland House, Hillsboro, for a luncheon meeting, April 8. Howard Elmore of the Defense Council, spoke on "Civilian Defense".—News clipping.

WARREN

Dr. Chas. Roy Steingrube, Cincinnati, was guest speaker at a meeting of the Warren County Medical Society, May 5, at the Golden Lamb Hotel, Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Dr. Howard D. McIntyre, associate professor of neurology, University of Cincinnati College of Medicine, spoke on "Brain Tumors", at a meet-

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ing of the Clark County Medical Society, April 23, at the Springfield Country Club.—News clipping.

MIAMI

"The Painful Syndrome of the Shoulder and Hand Associated with Myocardial Infarction", was the topic discussed by Dr. John T. Quirk, Piqua, at a meeting of the Miami County Medical Society, May 8, at Coates Inn, West Milton.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Fred J. Hodges, professor of roentgenology, University of Michigan Medical School, Ann Arbor, discussed "Importance of the Cyclotron to Medicine", at a meeting of the Montgomery County Medical Society, May 1, at Dayton.—E. McCall Smith, M.D., president.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

Dr. Frank W. Hartman, director of laboratories, Henry Ford Hospital, Detroit, spoke on "Indications and Use of Intravenous Fluids", at a meeting of the Lima and Allen County Academy of Medicine, May 19, at the Memorial Hospital, Lima.—C. Badertscher, M.D., secretary.

LOGAN

Diseases common in war times were discussed at the monthly dinner meeting of the Logan County Medical Society April 3, at Bellefontaine. Dr. C. J. Bondley, Belle Center, spoke on the epidemic of Asiatic cholera which broke out in Marion many years ago. The other speaker was Dr. Charles H. Thompson, West Mansfield, who presented a paper on "Typhus".—News clipping.

MARION

Nurses and representatives of the Women's Field Army for the Control of Cancer were guests at a meeting of the Marion Academy of Medicine, April 7, at the Marion City Hospital. The guest speaker, Dr. Horace B. Davidson, Columbus, assistant professor of pathology, Ohio State University College of Medicine, spoke on "Cancer Control".—News clipping.

"The Duty of the Psychiatrist to the Selectee Before and After Service", was the topic discussed by Dr. F. C. Wagenhals, Columbus, at a meeting of the Academy, May 5.—News clipping.

SENECA

Dr. Maurice A. Schnitker, Toledo, gave a very interesting and instructive lecture on "Examination of the Patient for Heart Disease", at a meeting of the Seneca County Medical Society, May 14, at the Shawhan Hotel, Tiffin. Recent War Bulletins of the Ohio State Medical Associa-

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(1) 1939. The Canned Food Reference Manual, American Can Company, New York.
1938. Commercial Fruit and Vegetable Products, Second Edition, W. V. Cruess, McGraw-Hill, New York.
1937. Appertizing or the Art of Canning; Its History and Development, A. W. Bitting, Trade Pressroom, San Francisco.
1936. A Complete Course in Canning, Sixth Edition, Press of "The Canning Trade," Baltimore.

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tion and Procurement and Assignment blanks were explained and discussed. There were 19 members present.—N. E. Williard, M.D., secy.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

HENRY

Dr. H. R. Wynn, Findlay, was guest speaker at a meeting of the Henry County Medical Society, April 14, at Napoleon.—News clipping.

LUCAS

The Toledo Academy of Medicine presented the following programs during May:

May 1—Eye, Ear, Nose and Throat Section, "First Aid Treatment of Eye Injuries", Dr. John L. Roberts; "First Aid in Medical Diseases of the Eye", Dr. Ralph E. Boice; "Demonstration of the Use of the Ophthalmoscope", Dr. Louis C. Ravin.

May 8—Section on Pathology, Experimental Medicine and Bacteriology. "The Recognition and Treatment of the Psychoneuroses", Dr. Louis H. Twyeffort, consulting psychiatrist, University Hospital, Philadelphia, Pa.

May 15—"Angina Pectoris", Dr. Frank N. Wilson, professor of medicine, and chief of cardiology, University of Michigan Medical School, Ann Arbor.—Bulletin.

SANDUSKY

Dr. M. M. Riddell spoke on "Management of Ear Conditions", at a meeting of the Sandusky County Medical Society, April 24, at Fremont.—News clipping.

WOOD

The Wood County Medical Society met in regular session April 17 in the new log cabin Students Union Building, "The Falcon's Nest", on the Bowling Green State University Campus, at Bowling Green. The members were welcomed by Dr. Frank J. Prout, president of the University, who also conducted them through the new Johnson Health Service Hospital. This building embodies the very latest improvements in hospital design and equipment and represents an outstanding addition to the fine buildings of Northwestern Ohio. Dr. Winship H. Brown, chief of the service, explained the technical developments of the institution. Dinner was served at 6 o'clock.

Dr. Wade Stone, Toledo, read the paper of the evening on "Chest Surgery". Dr. Stone ably discussed the intricate techniques used in this field and stressed the wartime need of men trained in this work. The impossibility of transporting the patient and the urgency of the measures complicate the problem and make special study imperative. Dr. Paul Orr introduced the speaker. A rising vote of thanks was

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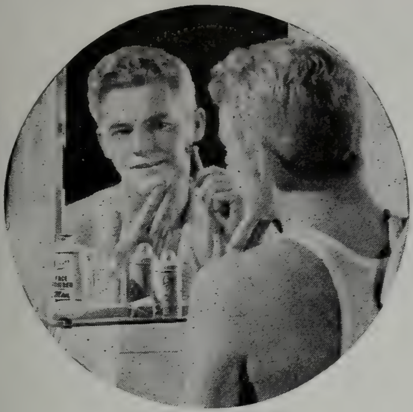

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Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

The Academy of Medicine of Cleveland presented the following programs during May:

May 1—Clinical and Pathological Section. "Colitis (Case Report)", Dr. C. C. Perry; "Diabetic Coma (Case Report)", Dr. D. A. Brody; "Ligation of Patent Ductus Arteriosis with Post Operative Course", Dr. A. D. Nichol; "Spheno-occipital Chordoma of Unusual Radio Sensitivity", Dr. J. R. Andrews; "Unusual Case of Alkalosis", Dr. James F. Jones.

May 6—Industrial Medicine and Orthopedic Section. "Infections of the Hand", Dr. A. C. J. Brickel; "Medical Aspects of Civilian Defense", Dr. William S. Keller, Senior Surgeon, U.S.P. H.S., medical officer, Fifth District, Office of Civilian Defense.

May 8—Pediatric Section. "The Responsibility of the Pediatrician for Behavior Problems", Dr. C. W. Burhans; "Common Behavior Problems and When They Arise", Dr. W. F. Schneider; "Treatment for Common Behavior Problems", Dr. H. C. Schumacher; "How to Tactfully Approach Parents", Dr. O. B. Markey.

May 22—Annual Meeting. "War Surgery in England", Dr. Philip Wilson, clinical professor of orthopedic surgery, Columbia University, and medical director of the American Hospital in Great Britain.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. Robert W. Heinle, Cleveland, spoke on "Iron Deficiency", at a meeting of the Columbiana County Medical Society, April 14, the Legion Hall, at Lisbon.

At a meeting of the Woman's Auxiliary on the same evening at the Hotel Wick, Lisbon, Mrs. Archie Dalon, nutrition expert, was the guest speaker.—News clipping.

MAHONING

Dr. Joseph A. Kasper, director, Bureau of Laboratories, Detroit Department of Health, spoke on "Acute Infections", at a meeting of the Mahoning County Medical Society, May 19, at the Youngstown Club, Youngstown.—Bulletin.

PORTAGE

"Anaesthesia", was the topic discussed by Dr. R. J. Whitacre, Cleveland, at a meeting of the

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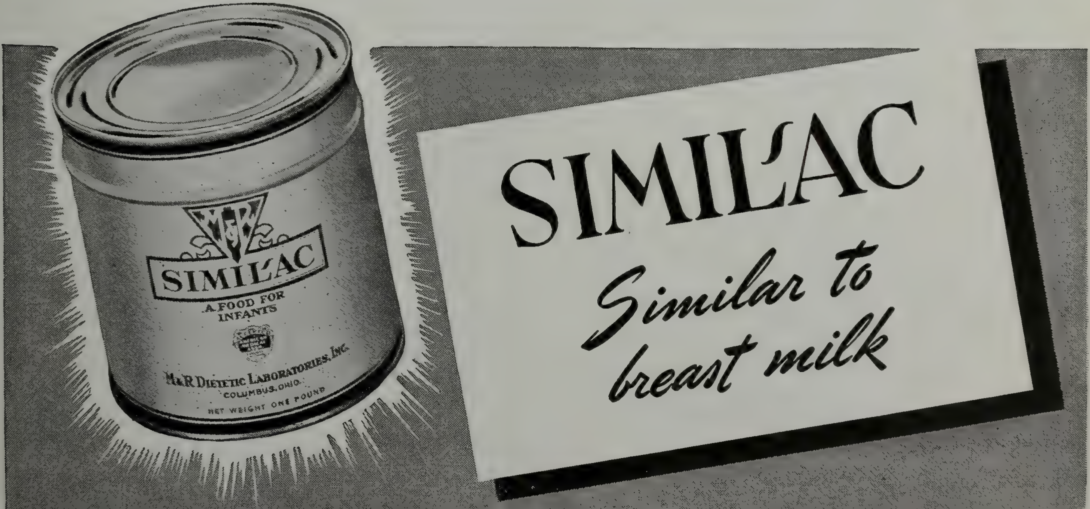

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Portage County Medical Society, May 7, at the Robinson Memorial Hospital, Ravenna.—Emily J. Widdecombe, M.D., Secretary.

STARK

New officers of the Woman's Auxiliary to the Stark County Medical Society are: Mrs. Graydon Underwood, Navarre, president; Mrs. L. L. Frick, Canton, president-elect; Mrs. K. E. Liber, Canton, vice-president; Mrs. F. P. Bennett, Alliance, secretary; Mrs. Howard Weaver, Canton, recording secretary; Mrs. Fred King, Canton, treasurer. —News clipping.

SUMMIT

"Summit County Medical Society in Civilian Defense", was the theme of a meeting of that society, May 5, at the Mayflower Hotel, Akron. Speakers were: Dr. Walter A. Hoyt, "General Plan"; Mr. Wilford Holcomb, "Hospital Organization"; Mr. R. M. Porter, "Equipment of Hospital and Squads"; Dr. R. A. Gregg, "Organization of Hospital Staff"; Dr. O. P. Allen, "Organization of Squads, Casualty Centers and First Aid Posts"; Mr. J. L. Prosser, "Function of the American Red Cross"; Dr. M. D. Ailes, "Organization of County and City Health Departments"; Dr. L. R. C. Eberhard, "Training Program"; Col. J. L. Cochran, commander, Summit County Civilian Defense, "The Control Center". A sound movie, "The Warning", was presented. It shows the actual occurrence of an air raid in England and the functions of Civilian Defense. —Bulletin.

TRUMBULL

Mrs. H. P. Porter, Niles, gave a talk on "Nutrition" at a meeting of the Woman's Auxiliary to the Trumbull County Medical Society, April 14, at the Hotel Warner, Warren.—News clipping.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

Members of the Woman's Auxiliary to the Belmont County Medical Society met at the home of Mrs. B. C. Diefenbach, Martins Ferry, March 19. The speaker was Mrs. E. C. Somerville, whose husband is stationed in the Philippines.—News clipping.

Mrs. C. W. Kirkland was hostess at a meeting of the Auxiliary in her home in Bellaire, April 16. The president, Mrs. L. D. Covert, was assistant hostess.—News clipping.

TUSCARAWAS

Lt. Col. William S. Keller, U.S.P.H.S., Cleveland, medical officer of the Regional Offiice for Civilian Defense, Fifth District, spoke on "The Role of the Physician in the War", at a meeting of the Tuscarawas County Medical Society, April 9, at the Reeves Hotel, New Philadelphia.

The Woman's Auxiliary met at the home of

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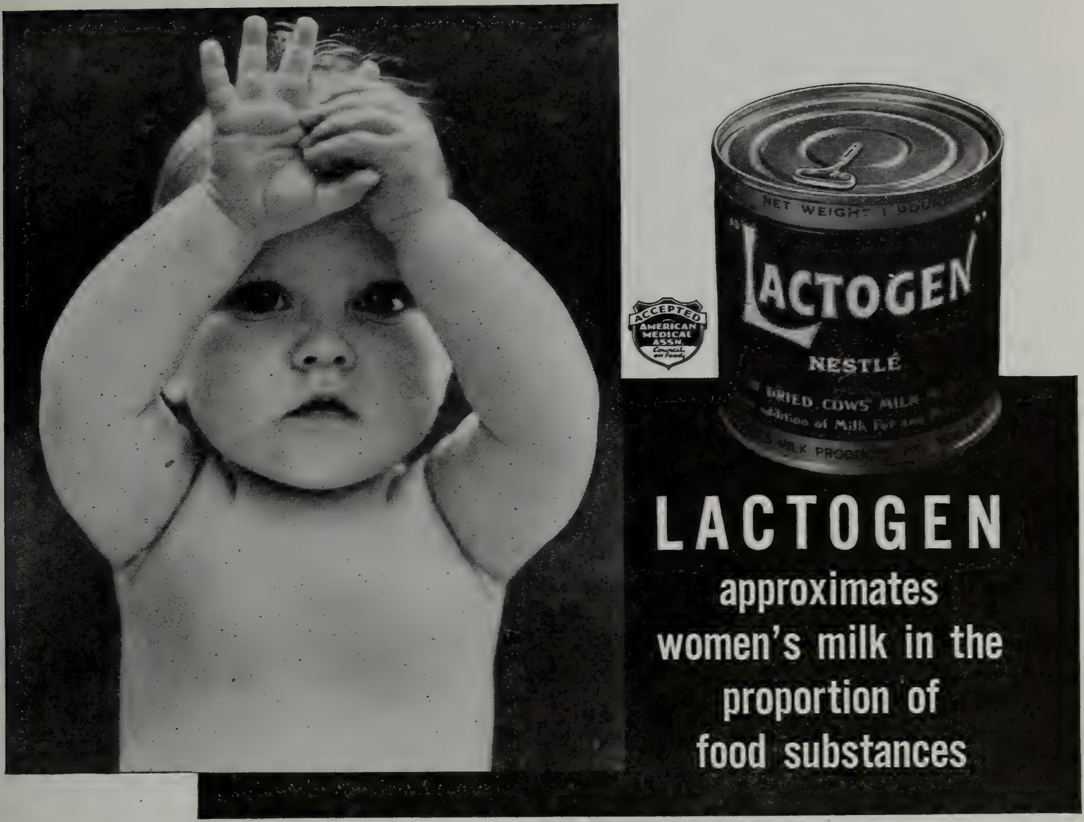

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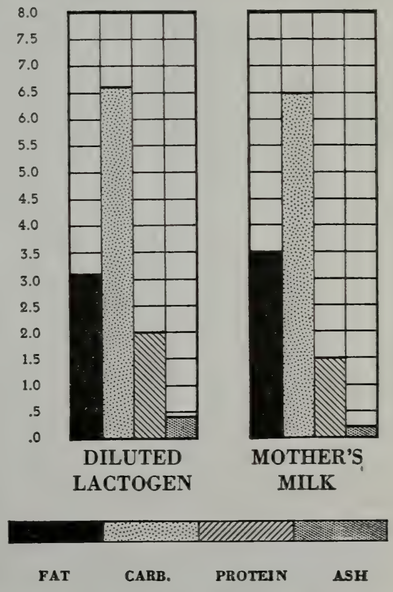

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>
> —John Lovett Morse, A.M., M.D.
> Clinical Pediatrics, p. 156.

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Mrs. W. R. Stager, Dover, April 9, with Mrs. Edgar C. Davis, Sr., and Mrs. Arthur Huston, Uhrichsville, as co-hostesses. Mrs. Elizabeth Barr, county tuberculosis nurse, presented a motion Picture.—News clipping.

Dr. Myrwood B. Sutton, New Philadelphia, spoke on "Infections of the Urinary Tract As Seen In General Practice", at a meeting of the society, May 14, at the Hotel Reeves, New Philadelphia.—D. M. Ceramella, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. Robin C. Obetz, Columbus, spoke on "Cardiac Arrhythmia", at a meeting of the Guernsey County Medical Society, April 16, at the Berwick Hotel, Cambridge.—News clipping.

MUSKINGUM

Lt. Col. A. J. Redland, M.C., U. S. Army, stationed at Fifth Corps Area Headquarters, Fort Hayes, Columbus, was guest speaker at a meeting of the Muskingum County Academy of Medicine, April 1, at the University Club, Zanesville.—News clipping.

Dr. John W. Wilce, Columbus, spoke on "The Athletic Heart", at a meeting of the Academy, May 6, at the same place.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

An interesting paper on "The History of Medicine in the Last 150 Years", was read by Mrs. C. R. Sloan, at a meeting of the Woman's Auxiliary to the Washington County Medical Society, April 8, at the Betsey Mills Club, Marietta. —New clipping.

Ninth District

(COUNCILOR: G. R. MICKLETHWAITE, M.D., PORTSMOUTH)

SCIOTO

Hugh W. MacMillan, M.D., D.D.S., lecturer on the staff of the University of Cincinnati College of Medicine, was guest speaker at a joint meeting of The Hempstead Academy of Medicine and the Southern Ohio Dental Society, May 12, at the Portsmouth General Hospital. A motion picture on "Sodium Pentothal", was also shown.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: H. M. CLODFELTER, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during May:

May 4—"Practical Consideration of the Endocrine Factors Involved in Menstrual and Reproductive Disorders", Dr. Ralph Campbell, associate professor of obstetrics and gynecology, University of Wisconsin Medical School; and Dr. Phillip F. Schneider, assistant in obstetrics and gynecology, Northwestern University Medical School.

May 18—"Aortic Stenosis", Dr. Howard T. Karsner, Cleveland, professor of pathology, Western Reserve University School of Medicine.

May 25—Section in General Medicine. "Syphilis", Dr. Louis J. Roth.—Bulletin.

Dr. R. H. Markwith, State Director of Health, spoke on "Health Education", at a meeting of the Woman's Auxiliary, April 20, at the University Club.—News clipping.

ROSS

Dr. A. D. Frost, Columbus, spoke on "Ophthalmology in General Practice", at a meeting of the Ross County Academy of Medicine, May 7, at Chillicothe.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

"Mild Depressions and Their Treatment", was the topic presented by Dr. John H. Nichols, Cleveland, at a meeting of the Lorain County Medical Society, May 12, at the Elks' Restaurant, Elyria.—L. H. Trufant, M.D., secretary.

Middletown—Dr. Mabel E. Gardner, state chairman of the Health Committee of the Business and Professional Women's Clubs, was guest speaker at a meeting of the Business and Professional Women's Club at Wilmington.

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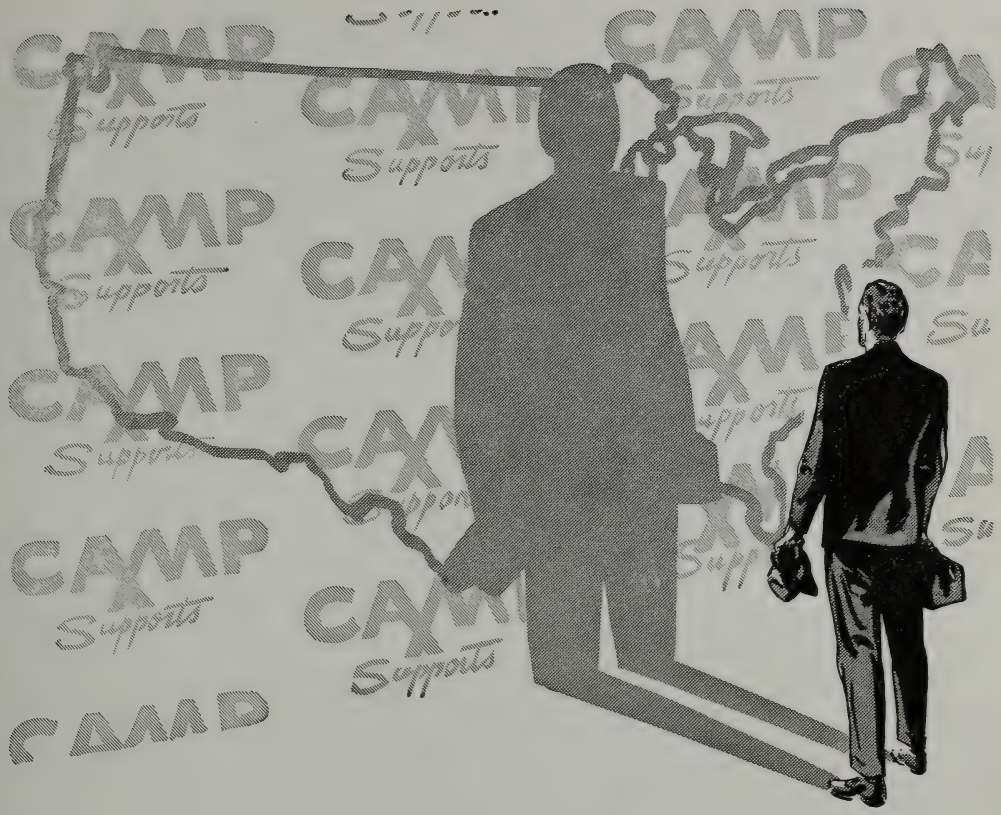

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The Physician's Bookshelf

Proceedings of the 35th Annual Convention of the Association of Life Insurance Presidents *(published by the Association, 165 Broadway, New York City)*, presents the problems of the insurer and the insured in relation to national emergency, for the meeting was held just four days after Pearl Harbor. Any physician who is tending to become a victim of propaganda about the worthlessness of life insurance had best spend an evening with this booklet before he cancels his insurance.

Special Instruction for Constructive Meal Planning, by N. Philip Norman, M.D., New York City. ($1.00, *Mimeographed pamphlet)*, sets forth a constructive scheme of meal planning. Is based on the use of natural foods attempting to increase the amount of fruit, salads and milk, and to restrict automatically the sugars, starches, excess fats and proteins. The salad dressing recipes and the sauces are an addition to most cookeries. All in all, the book represents a very satisfactory attempt to make understandable the art of planning menus.

Modern Medicine, Its Progress and Opportunities, by Netta W. Wilson and S. A. Weisman, M.D. ($2.00, *George W. Stewart, Inc., 67 W. 44th Street, New York City)*, is designed for the family library and contains authoritative information that the intelligent and well informed layman will want to have about the more important aspects of modern medicine. Mrs. Wilson is an educational writer for Minnesota State Department of Health and the book is well adapted to persons who have normal interest in science and the world about them but who lack technical information about medicine.

The Science of Personality, by Andras Angyal, M.D. ($2.25. *The Commonwealth Fund, New York City)*, attempts to satisfy the need for a broad theoretical framework of reference for the integration of the manifold aspects of human nature and behavior. It will appeal to all who in any way deal with the problems of personality and are looking for a foundation for their knowledge and its classification.

How to Organize Group Health Plans, by M. W. Brown, K. G. Clarke, P. R. Taylor (25c. *Edward Filene, Good Will Fund, 31 Milk St., Boston, Mass.)*, is the report of the joint committee of the Good Will Fund, the 20th Century Fund and Medical Administration Service, Inc., and is presented to satisfy a demand for information concerning the economics of medical service plans and methods for their administration. There are chapters on how to organize, the right to organize, legal framework for or-

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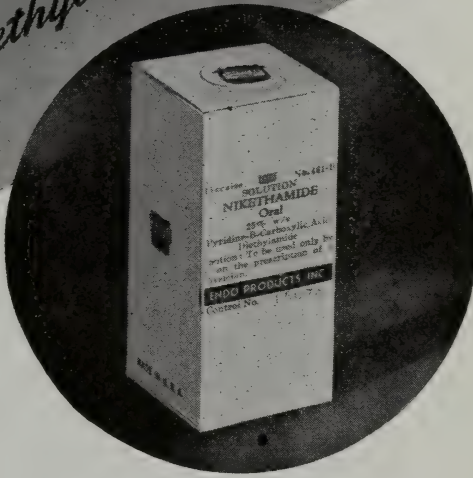

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ganization. Our own Enabling Act is presented in detail as the typical one. There are other chapters on the general principles of membership, methods of enrollment, finance and some of the legal problems in operating such plans. All who are interested in medical service plans should have a copy of this book. While it is more nearly keyed to the consumer type of cooperative it presents a discussion of many of the problems inherent in both consumer and producer's cooperative for distributing medical service.

Cardiac Classics: A Collection of Classic Works on Heart and Circulation With Comprehensive Biographical Accounts of the Authors, compiled by Frank A. Willius, M.D., and Thomas E. Keip, M.D. ($10.00, *Mosby, St. Louis)*, is an assembly in one volume of some of the more important original contributions. No two persons would agree as to the value of many possible contributions which might have been included, but certainly this book is worth its price and belongs in every interne's library and in that of every cardiologist, every medical historian and every other physician who wants to be well read.

Medical State and National Board Summary, by Wm. H. Kupper, *(Colt Press, Patterson, New Jersey)*, presents in a very compact style the fundamental principles which thereby offer an inexpensive summary for applicants to examination. A very clever book well adapteed to its purpose.

Mental Hygiene for Community Nursing, by Eric Kent Clark, ($3.50. *University of Minnesota Press)*, is a comprehensive presentation of mental health problems illustrated by brief but well chosen and well told human interest stories. This makes a readable guide for public nurses and will help them to recognize mental changes early and to have an appreciation of what the community can do for individuals of this kind.

Casebook of Marriage Problems, by Ernest R. Groves, (25c. *Henry Holt and Co.)*, presents 25 well chosen problems by the author of Marriage. As the problem is stated the background is given and then references to the current literature are made, so that one may look up authoritative answers to these problems.

Anoxia, Its Effect on the Body, by Edw. J. Van Liere, M.D., ($3.00. *University of Chicago Press, Chicago, Ill.)*, is a comprehensive review of literature to date upon this most important topic. Systematically describes the effect on the blood, heart, circulation, lymph and respiration; the chemical changes in the body produced by it; the symptoms and cause of altitude sickness; acclimatization, the effects on the secretion, excretion of kidneys and alimentary tract; on oxidation with regulation of water distribution; body metabolism and the nervous system and nutrition in general. A most timely contribution to some of the more important problems of aviation.

Internal Medicine in Old Age, by Albert Mueller-Deham, M.D., and S. Milton Rabson, M.D. ($5.00, *Williams and Wilkins, Baltimore, Md.)*, presents the personal observations on old people by the former chief of Municipal Hospital for Chronic Diseases, Vienna, and pathologist to New York Postgraduate School. Primary emphasis is on diagnosis and treatment. Therapy is shown to be more efficient and to have wider scope than is generally assumed. It is refreshing to have this optimistic viewpoint on the increasingly important field of geriatrics.

Biology for Better Living, by Ernest Bayles and R. W. Burnett. ($2.28, *Silver Burdett)*.

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154. Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

TO PHYSICIANS WHO SMOKE A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

While this is intended for a textbook and is indeed an excellent one of the new pattern, it is about as interesting reading as I have come across in a long time. It certainly should arouse and hold the student's interest. What is important to us is that it gives the student an attitude toward living which will make him cooperative with medicine throughout his life. The book is beautifully and well illustrated.

How To Grow Food For Your Family, by Samuel R. Ogden ($2.00, *A. S. Barnes & Co., New York City)*, is a very practical book by a plain dirt gardener who grows food to eat as a part of his daily work. In these days when doctors and their wives are working in the Victory Gardening Movement, this book has a very legitimate place in this *Journal.* The author starts with the choice of a plot, shows how to test and improve the soil, combat the ordinary pests, and grow the vegetables for their fullest food value.

The Mayos, Pioneers in Medicine, by Adolph Regli ($2.50, *Julian Messner, Inc., 8 W. 40th St., New York City)*, is written by one of the staff of the *Minneapolis Journal* and author of *Rubber's Goodyear,* giving a very interesting interpretation of the lives of these two popular medical personages. The theme is the Mayos, born at the right time, of the right parents to face the right generation which was desperately in need of skilled and adventurous surgery. They made certain their success would benefit this and future generations.

Your Personal Problems and How to Solve Them, by G. Franklin Leavitt, M.D. *(The Author, 1167 Willmette Ave., Willmette, Ill.)*, is the interesting story of a doctor who, upon taking inventory of himself after nine years of practice, became impressed with the importance of the physician's personality in the treatment of the sick. Since that time the author has spent much time as a psycho-therapeutist and his book lives up to its title.

Nephritis, by Leopold Litchwitz ($5.50, *Grune and Stratton, New York City, 1942)*, is a reasonably concise book on one of the most important problems in daily practice. Great emphasis is placed on a clear and definite way to a safe diagnosis. The use of this book should prove of great satisfaction to every owner.

Behind the Mask of Medicine, by Miles Atkinson, M.D. ($3.00, *Scribner's)*, explains to laymen in non-technical terms much about medicine in the tone of the recent magazine article on the hospital situation. The essays discuss Medicine and Civilization; The Discoveries of the Last One Hundred Years; The Path to Diagnosis, The

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[1] Levin, E. A. & Keddie, Frances: *J.A.M.A.* 118:368, 1942

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Art of Prophecy, The Cure of the Sick, Excesses in Surgery; The Overgrowth of Specialism; The Plight of the Hospitals, etc., etc. We are probably too much concerned with the war to give a book of this kind consideration now. Nevertheless, some day we of the profession will be sorry we did not listen.

Diets for All Ages, by Richard M. Field, M.D. ($2.50, *Doubleday, Doran & Co., New York City)*, presents medical dietetics, suggestions for 325 common ailments, on the outline of 32 corrective diets, showing the foods to be used and the foods to be avoided and how the meals are to be planned.

A Textbook of Surgery, by Frederick Christopher, M.D. ($10.00, Third Edition, *W. B. Saunders Company, Philadelphia, Pa.)*. In six years this book has come to occupy a place in American medical teaching. Already several of those who were in the first Forum have died, Judd, Dean Lewis, Gatewood, Edmund Andrews, Willis Campbell, Robert Sooneschein. Among the long list of authors, Ohio is represented by George M. Curtis.

Manual of Endocrine Therapy, by Bernard C. Seinberg, M.D. ($3.25, *Chemical Publishing Co., Brooklyn)*, presents a compact test for the physician or clinician who is interested in this subject.

Female Sex Hormone Therapy: The Follicular Hormone: The Female Sex Hormone Therapy: The Corpus Luteum Hormone: Male Sex Hormone Therapy: A Clinical Guide. *(Schering Corporation, Bloomfield, New Jersey)*, presents in three small volumes of fifty odd pages apiece the entire subject of sex hormones. These volumes have been presented by the research staff of Schering Corporation. These books are very well worthwhile to have and keep on your shelf for frequent reference. Someone has said that they represent the truth in the adage, "The best things are free".

The 1941 Yearbook of Dermatology and Syphilology ($3.00, *Yearbook Publishing Co., Chicago, Illinois)*. Edited by Fred Wise, M.D. and Marion Sulzberger, M.D., presents a critical survey of the field. The editor's special original contribution this year deals with the treatment of dermatitis seborrheica. This alone is worth the price of the book. Eighty-five pages on allergy are exceedingly helpful.

Radiations and Waves, Sources of Our Life, by Georges Lakhovsky ($2.50, *Emile L. Cabella, 228 E. 45th St., New York, U.S.A.)*, presents work and theories of this eminent refugee. Presents a theory of cellular oscillation and that each cell presents true oscillating circuits. The book contains many bold statements and reports of phenomenal cures. Is an explanation of biology in terms of physics. Still remains novel.

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The Ohio State Medical Journal

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Vol. 38 July, 1942 No. 7

JONATHAN FORMAN, M.D., *Editor*

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Chemotherapy

CHESTER S. KEEFER, M.D.

IT is true without question that chemotherapy has completely changed the treatment and outlook of many infectious diseases. At no time in the history of medicine have so few drugs been applicable to the treatment of so many infections and with such striking success. The fatality rates in many diseases are reduced, the total duration of illness is shortened, complications are less frequent and, in the case of some diseases, the sulfonamides are the only therapeutic agents available of any special merit. In spite of these great advances, a number of problems continue to exist and require solution. Today I propose summarizing some of the beneficial effects of chemotherapy as well as calling attention to some of its limitations. I shall also discuss some of the more important side reactions of the drugs which are in common use, and attempt to appraise the relative value of the different sulfonamides in various infections.

It is now generally conceded that the various sulfonamides have a devastating effect on hemolytic streptococcus, pneumococcus, gonococcus, and meningococcus infections. They also influence in a favorable sense infections due to the staphylococcus, colon bacillus, influenza bacillus, and certain other organisms which infect the urinary passages. They are of great value in the prevention of wound infections and in the treatment of burns, and of less value in infectious diseases of the gastro-intestinal tract.

The Author

● Dr. Keefer, Boston, Massachusetts, is a graduate of Johns Hopkins University Medical School, 1922; member Association of American Physicians; American Society for Clinical Investigation; fellow American College of Physicians; director, Evans Memorial; physician-in-chief, Massachusetts Memorial Hospitals; Wade professor of medicine, Boston University School of Medicine.

PNEUMONIA

At the present time, the drug of choice in the treatment of all pulmonary infections is sulfadiazine. This includes infections caused by the pneumococcus, the streptococcus, the staphylococcus and the Friedlander bacillus. This statement receives support from the fact that clinical experience and experiments on the relative efficiency of sulfanilamide, sulfapyridine, sulfathiazole and sulfadiazine indicate that sulfadiazine is less toxic and more effective than the others. Recent reports [1,2] indicate that the death rate from pneumonia following the use of sulfadiazine is approximately 10 per cent for all ages. Under 50 years of age it is about 3 per cent. Higher fatality rates are encountered in patients over 50 years of age and in those with bacteremia. On the basis of experience in the treatment of pneumonia in civil practice it is suggested that the mortality from pneumonia among the armed forces during the present war should not exceed 2 to 3 per cent instead of 25 to 30 per cent in the last war.

Read before the First General Session, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

From the Evans Memorial, Massachusetts Memorial Hospitals, and the Department of Medicine, Boston University School of Medicine, Boston, Massachusetts.

From the reports concerned with the treatment of pneumonia with the sulfonamides it has emerged that the best results follow early treatment in patients under 50 years of age without bacteremia. It is only natural to inquire whether a further reduction in fatality rate can be accomplished by combining specific serum treatment with chemotherapy. This is a question about which there is considerable discussion and some difference of opinion. Finland[3] who has had a wide experience with the treatment of pneumonia over a period of years continues to use combined therapy in patients over 50 years of age, who fail to respond to chemotherapy, and in those who suffer from chronic alcoholism. He has brought forth convincing evidence that the fatality rate in this group is lower when the combined treatment is used than when either serum or the sulfonamides are used alone. One can conclude, then, that serum therapy for pneumonia has not been entirely supplemented by the sulfonamides.

WOUND INFECTIONS

At present there is great interest in the prevention and treatment of wound infections. In general, it can be stated that there are three groups of organisms which are responsible for wound infections: 1) the Clostridia infections including those due to the tetanus bacillus, the gas bacillus and the other members of the group that cause edema or gas in wounds; 2) hemolytic streptococcus; 3) Staphylococcus aureus.

There is no longer any doubt that tetanus can be prevented by the use of tetanus antitoxin or by previous inoculation with tetanus toxoid. It is also becoming clear that gas gangrene can be prevented by using sulfanilamide powder locally in a wound after debridement and giving it by mouth at the same time. Hemolytic streptococcus infections of wounds can be prevented by taking adequate aseptic precautions in the treating and dressing of the wounds by physicians and nurses since it is now plain that wound infections due to this organism come from other patients in wards with similar infections, from carriers among the attendants, and rarely by autoinfection from the patient's nose and throat. In addition to observance of these precautions, the use of sulfanilamide powder in the wound and by mouth is of great aid in the prevention of these infections.

Once infection has become established, then adequate drainage and the use of sulfanilamide powder locally and by mouth are important. In the case of gas gangrene, the use of antitoxin is also recommended.

In any event, the local and oral use of the sulfonamides is by far the best prophylactic method of preventing infection of wounds. Once infection has developed, then the type of sulfonamide used will depend on the bacterium involved. Sulfathiazole or sulfadiazine for staphylococcus infections, and sulfanilamide or sulfadiazine for hemolytic streptococcus infections would seem to be the drugs of choice.

MENINGITIS

Meningitis due to the meningococcus or hemolytic streptococcus can be treated by chemotherapy alone with remarkably good results. Meningitis due to the pneumococcus or the influenza bacillus should be treated with a combination of serum intravenously and chemotherapy. The entire subject of the treatment of meningitis has been summarized recently by Dingle and Finland[4] and Keefer[5]. It can be stated that the etiology of all cases of meningitis should be determined by means of lumbar puncture, and the focus of infection searched for in all cases. A blood culture should be made in every case and chemotherapy by mouth or intravenously started at once. Serum should be used in pneumococcus and B. influenza meningitis. When these procedures are followed the fatality rate in all forms of meningitis will be lowered.

STAPHYLOCOCCUS INFECTIONS

By common consent it is agreed that the sulfonamides will alter the course of some cases of staphylococcus infection, especially those associated with bacteremia or pneumonia. On the whole, however, the same striking effects have not been obtained in the treatment of these infections as in many others. There are numerous reasons for this but it is well to mention a few of them. In the first place staphylococcus infections with bacteremia are always serious infections with a high fatality rate. The organisms localize in various parts of the body and produce abscesses which are difficult to influence by chemotherapy or surgical treatment, and staphylococci are more resistant to the effects of the sulfonamides. In spite of all these difficulties, it would be a mistake to believe that the sulfonamides have not affected the course and fatality rate of many staphylococcus infections. Recent reviews of the treatment of staphylococcus infections have been published by Spink,[6] Spink and Haserick[7], Torrey, Julianelle, and McNamee[8], and the study of experimental staphylococcus infections in mice has attracted the attention of Kolmer and Brown[9].

The results of the experience of these men deserve careful consideration. Spink and Haserick have selected for discussion the cases of staphylococcus sepsis with the worst prognosis, namely those with bacteremia. They recommend the prompt drainage of any suppurative focus, the use of sulfathiazole by mouth or parenterally so that the concentration in the blood is at least 5 to 7 mgm. per 100 cc., and the use of adequate amounts of antitoxin in certain cases. Using these various forms of treatment the fatality rate in 56 cases of staphylococcus bacteremia was 35.7 per cent. It was somewhat lower in patients with osteomyelitis or arthritis (28.5 per cent). It is well to point out, however, that the best results were observed in patients under 20 years of age. With advancing age there was an increase in the fatality rate.

In a comprehensive review of the value of chemotherapy in the treatment of osteomyelitis Wilensky[10] has pointed out how difficult it may be in individual cases to decide whether the sulfonamides have influenced the course of the disease. While he admits that the treatment of osteomyelitis with sulfanilamide and its derivatives has not produced the startling results which are common in other diseases, he expressed the opinion that chemotherapy is especially indicated in the stage of general infection. The studies of Hoyt, Davis, and Van Buren[11] in the treatment of osteomyelitis with chemotherapy alone are, on the whole, most impressive and deserve further careful investigation.

The recent paper of Finland, Strauss, and Peterson[12] on the treatment of staphylococcus pneumonia is one that excites interest. They reported a group of cases of staphylococcus pneumonia following epidemic influenza in which both sulfadiazine and sulfathiazole were effective in causing rapid improvement and recovery in patients with and without empyema.

Other evidence that chemotherapy is effective in some cases of staphylococcus sepsis comes in the paper by Schall[13] on the treatment of septic thrombophlebitis of the cavernous sinus. Three consecutive cases of this highly fatal disease have recovered following the use of sulfathiazole and heparin.

In brief, it can be said that chemotherapy has improved the outlook in many cases of staphylococcus infection. It is most effective when used early and during the period of invasion. This type of treatment must be combined with other well established methods such as rest of affected part, drainage of abscesses, and specific antiserum injections.

URINARY TRACT INFECTIONS

In recent months, Finland and Peterson[14] have reviewed thoroughly the pertinent facts concerning the use of the sulfonamides in the treatment of urinary tract infections. There is no doubt that the sulfonamides are most effective in those cases of urinary tract infection without obstruction or complications such as stones or renal abscess, but in these cases they are of value as pre- and postoperative forms of treatment. Of all the sulfonamides, sulfathiazole and, perhaps, sulfadiazine are the most valuable in treating urinary tract infections due to B. coli, Staphylococcus aureus, B. proteus, and less effective in Streptococcus faecalis infections. Sulfanilamide is effective in rare cases of pyelonephritis due to B. influenzae.

The best plan to follow in any case of urinary tract infection is to determine the etiology of the infection, ascertain whether any obstruction or complication exists, and then use the drug that is most effective in sterilizing the urine. In Table I there is a list of organisms and an indication of the relative value of the various drugs in their treatment. In all cases the fluid output should be 1500 cc. a day or more. The reaction of the urine is of little importance. The concentration of the drug in the urine should be at least 150 mgm. per 100 cc. of urine. This can often be obtained with as little as 2 to 3 gm. of the drug given by mouth in a twenty-four hour period.

TABLE I

RELATIVE VALUE OF SULFONAMIDES IN URINARY INFECTIONS

	Sulfanilamide	Sulfapyridine	Sulfathiazole	Sulfadiazine
E. coli	++	++	++++	++++
Streptococcus faecalis	O	O	++	?
B. proteus	±	?	+++	?
Aerobacter aerogenes	±	?	+++	?
Pseudomonas	—	?	—	
B. influenzae	++++	?	?	?
Staphylococcus aureus	±	?	++++	++++

GASTRO-INTESTINAL TRACT INFECTIONS

The treatment of bacillary dysentery with sulfaguanidine stimulated interest once again in the chemotherapy of intestinal infections. It has been reported that sulfaguanidine is effective in clearing up some carriers of dysentery bacilli[15] and that it will shorten the duration of most acute cases of the disease[16]. There is almost universal agreement that it will not influence in a favorable sense any cases of ulcerative colitis of a nonspecific nature. After considerable experience with sulfaguanidine, Firor and Poth[17] decided that it was unsatisfactory because it was often absorbed from the gastrointestinal tract and caused signs of intoxication, and was ineffective in the presence of ulcerating lesions of the bowel.

More recently a new sulfonamide, succinyl sulfathiazole has been studied by Poth, Knotts, Lee and Inui[18,19]. They suggest that this drug is limited to its local bacteriostatic activity on the contents of the gastrointestinal tract, and they are suggesting its use for the pre-operative preparation of patients requiring operative procedures on the gastrointestinal tract, and for the treatment of typhoid fever and dysentery. We have used it in one case of typhoid fever and several cases of ulcerative colitis without any beneficial effect. It is difficult to understand how any drug which has only a local bacteriostatic effect on the contents of the gastrointestinal tract can influence the course of a general infection such as typhoid fever. This was certainly borne out in our own experience with a single case.

From the experimental study with this drug by Poth and his associates[18] the following facts are significant. In vitro, succinyl sulfathiazole has practically no bactericidal effect on B. coli when these organisms are grown in synthetic media. It is absorbed very poorly from the gastrointestinal tract so that a high concentration can be maintained in the stools without causing signs of intoxication. The drug which is absorbed is excreted in the urine and by the liver. Once it is absorbed, it is split by means of hydrolysis to form sulfathiazole. Following its use the stools become loose and semi-fluid, and when bacterial counts are made on the stools without making any attempt to remove the drug, the total number of organisms in the stools decreases greatly. The value of this drug as a prophylactic in intestinal surgery remains to be determined.

TOXIC REACTIONS

I have recently summarized the toxic reactions of the various sulfonamides elsewhere[20] but some of them deserve special comment for purposes of emphasis. The most serious complications of sulfonamide treatment are those involving the kidneys and ureters, including hematuria, renal colic, oliguria, and anuria. They are encountered most often following sulfapyridine and sulfathiazole, less often following sulfadiazine, and not at all following sulfanilamide. In the case of sulfapyridine, the initial symptoms are most often pain and hematuria; the crystals precipitate out in the pelvis of the kidney or the ureters. This characteristic allows one to make the diagnosis early and relief may be obtained by ureteral catheterization and pelvic lavage together with increasing the fluid intake. When oliguria and anuria follow sulfathiazole therapy there may be no early symptoms because the crystals are deposited in the tubules and cause intrarenal obstruction. The most important single procedure to follow in decreasing the renal complications is to maintain an *adequate urinary output*, i.e. at least 1500 cc. or more daily. Sulfadiazine may cause oliguria or anuria but only rarely.

The second most important complication is agranulocytosis. It is more common following sulfanilamide than sulfathiazole or sulfadiazine, but it is by no means unknown and is likely to occur when the drug is given over a period of two to four weeks.

Finally, the third most serious complication is anemia, and while it is less likely to occur following sulfathiazole or sulfadiazine and more common following sulfanilamide, it is well in all cases to follow the blood closely in patients who are receiving large amounts of the drug.

Such side effects as nausea, vomiting, fever, skin eruptions, are frequent but not especially serious in most cases since they disappear promptly following the discontinuance of the drug. Rare complications such as toxic necrosis of the liver are seen after sulfanilamide, but not after the other drugs.

It is well, then, in all patients receiving the sulfonamides to look for renal complications and changes in the blood.

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Importance of Diet in the Control of Tuberculosis

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IT really is not difficult to work out relief budgets for tuberculous families; however, there is a big problem in getting these budgets put into actual practice in many communities.

The changing attitude toward the problems of human nutrition is reflected by the constantly changing values now given for minimum requirements of proteins, fats, carbohydrates, vitamins and minerals. It has long been recognized that the human organism cannot survive on a diet providing merely proteins, fats and carbohydrates, although this diet may supply the necessary number of calories. Investigators have shown that many additional factors are needed, such as adequate amounts of vitamins and minerals in proper relationship to insure a state of wellbeing.

Chemical analyses, formulas or diet slips fail to tell the complete story of nutrition. Digestibility, mineral and vitamin contents of our foods that supply a liberal amount of all essential amino acids in relationship to other nutrients is of much greater importance.

The importance of an adequate budget for tuberculous families is now recognized as one of the most important factors in the control of tuberculosis.

As a guide to the selection of foods meeting all the requirements of good nutrition, Dr. H. C. Sherman has given the two following rules:

(1) Spend at least as much for milk (including cheese and cream) as for meats, poultry, and fish.

(2) Spend at least as much for fruits and vegetables as for meats, poultry and fish.

FACTS ABOUT FOOD PROCESSES, DIETARY HABITS AND RESULTS OF SURVEYS

American food producers and processors now offer the public a more varied supply of food than at any other time in the history of our country, but in many instances have destroyed part of its nutritive value.

The two processes which are most to blame are:

(1) The decortication and degermination of cereals, especially wheat, and the crystallization of chemically pure sugar from cane and beets, and

(2) The canning and drying of all kinds of food.

The milling of grains has resulted in loss of about six-sevenths (6/7) of its vitamin content and an almost equal share of its minerals. Even greater losses occur in preparing chemically pure sugar.

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From 20 to 80 percent of the water-soluble vitamins is leached out of fruits and vegetables during canning, and may be thrown away if a blanching process is used or if the liquid in the can is not utilized.[1]

The crux of the matter is that the average American diet in many respects is poor, not in amount, but in quality; containing, as it does, 6½ ounces of plain white flour, 5½ ounces of refined white sugar, and 2 or 3 ounces of fat.[2]

The so-called "protective foods", such as fresh green or yellow vegetables, fresh fruits, dairy products and meats are relatively expensive for city people, and are often insufficient in the diets of people in the lower income groups.

According to recent estimates based on federal consumption studies, at least 50 percent of the calories consumed by Americans today comes from the two devitalized sources, white flour and chemically pure sugar.

In the March, 1941, issue of War Medicine, R. M. Wilder cites the Stiebling[3] report which shows that no more than 15 percent of the four thousand families studied in the United States have diets that can be rated as "good"; whereas 35 percent were "fair", and 50 percent have diets which are "poor". It is now believed that the standards used in this and other surveys are lower than those regarded at present as representing satisfactory nutrition.

SOME INTERESTING FINDINGS ABOUT FOODS AND DIET IN RELATIONSHIP TO HEALTH AND INFECTION

As a result of experience, the relationship between certain foods and certain physical conditions was known long before anyone knew the real reason. Burned sponges were used in the

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Read before the Mississippi Valley Conference on Tuberculosis, Columbus, Ohio, October, 1941.

thirteenth century to treat goiter, and it was not until 1819 that the chemist, Dumas, discovered iodine in this ash. Cod-liver oil was used to treat rickets centuries before Vitamin D was discovered, and the Florentine pharmacists of the Middle Ages were selling lemonade as a remedy for scurvy long before Vitamin C and its significance were recognized.

Under certain conditions, especially in relief families when the choice of foods is limited, the diets customarily followed can cause inefficiency, sickness or even premature death.

A normal healthy body possesses remarkable powers of warding off or of overcoming many infections. Pronounced underweight before the age of 25 years is often associated with lack of resistance to pulmonary infections.

Animals deprived of Vitamin A have been reported to develop infections very rapidly, and it is now generally accepted that natural resistance to disease (not acquired resistance) is dependent upon and varies with the nutritional state of the body. It has also been shown that inherited resistance to tuberculosis can be enhanced or reduced by the food eaten.

To maintain resistance at its highest level, an adequate supply of all vitamins is necessary. The general knowledge of this fact and the greater use of Vitamin A, C and D have very likely influenced the lowering of the incidence of intestinal tuberculosis.[4]

Studies in Denmark during the first World War indicated that the "protective foods" played an important part in the resistance of the individual to tuberculosis.

Rosenau believes that the use of food in the treatment and prevention of disease is growing along with sanitary control of food. He said, "Some of our best medicine is bought in the market rather than in the drug store".

Many individuals suffering from thiamine (Vitamin B_1) deficiency are depressed, irritable, quarrelsome, uncooperative, fearful, inattentive, of uncertain memory, and undergo loss of dexterity. This has been demonstrated by the work of Williams and his co-workers.[5]

PERTINENT INFORMATION ABOUT TUBERCULOSIS WHICH SHOULD HAVE A DIRECT BEARING ON RELIEF BUDGETS IN TUBERCULOUS FAMILIES

Tuberculosis is a debilitating disease, in which emaciation is a salient feature, and the effort should be to prevent this by appropriate diet.[6] A vicious cycle prevails between poverty and tuberculosis, and tuberculosis and poverty. Environmental factors seem to have a more common influence on the development of the disease than do the constitutional factors.[7]

The importance of diet and nutrition was demonstrated during the first World War when the death rate from tuberculosis doubled in Germany and other countries in which food supplies became low. As soon as these factors were restored to normal the toll of tuberculosis dropped again to pre-war levels.[8]

Doctor H. Kennon Dunham has often said, "A tuberculous patient starves quicker than other individuals". No truer statement has ever been made. This applies not only to the active tuberculous patient in the hospital but also to the inactive tuberculous patient for several years after discharge. Good, nutritious food is needed to keep up body resistance in preventing a relapse. Social and welfare workers will do well to note this point.

For two and a half years, beginning July 1, 1938, as tuberculosis coordinator for Cincinnati and Hamilton County in Ohio, I saw practically every patient in his home before admission to the Hamilton County Tuberculosis Hospital. During this same time I also saw many patients in their homes who had been discharged from the same institution; and, while the prime object of my visit to these homes was medical, I could not overlook the fact that many of these individuals lived in over-crowded quarters on very inadequate diets.

One can fully appreciate the difficulties of a welfare department in attempting to set up a restricted diet for people on relief, especially in families where individuals are poor buyers, poor managers, or where money is used to buy alcoholic drinks instead of food. To this picture add the burden of tuberculosis and you have a real problem.

Many of these problems have been solved in our community, but like other communities there is still much room for improvement. We feel quite hopeful with the fine spirit of cooperation we now have. To illustrate one nice example: A group interested in tuberculous families appeared before the Cincinnati Finance Committee of City Council, explained our problems and presented facts, with the result that $3,000 per month was granted in addition to regular relief as supplementary assistance for tuberculous families.

Too often, social, welfare and relief agencies think the problem has been solved as soon as the tuberculous individual gains admittance to a tuberculosis hospital. This is far from being the case, because of the family exposure to active tuberculosis. This is especially true when there are children and young adults in the home. Frank Howard Richardson has forcibly called this to our attention by stating that, "every open active case of tuberculosis infects from 60 to 100 percent of the members of the household in which he lives". Many tuberculosis authorities now feel that from two to six months exposure to an active case of tuberculosis (positive sputum case) is long enough to infect every member of the family.

It has been estimated that only one in fifty who are infected (primary infection) develops an active adult type of tuberculosis and, therefore, Krause argues there must be some variation in the host which determines this.[9] Diet certainly plays an important part.

In infants and in children up to three and four years of age the postive tuberculin test can be taken as a sign of a relatively active process, because the tuberculous infection needs at least two to four years before it is arrested.[10] This clearly illustrates the importance of an adequate budget in tuberculous families, where there has been a recent active case, for a period of from two to four years, to keep up the resistance of all contacts in order to prevent their developing the adult type of tuberculosis, which requires costly hospitalization.

Surveys on discharged tuberculous patients in the United States show that from 15 percent to 65 percent have relapses.[11] In those communities where the percentage of relapses is lowest you will always find that the budgets to these individuals and their families are much better than are the budgets to individuals and their families in communities where the percentage of relapses is highest.

Recent studies have also shown that the percentage of tuberculous patients who leave tuberculosis hospitals against medical advice often reaches 25 percent of the discharges. A great deal of this is due to the fact that their families are not given a large enough budget to provide an adequate diet or a decent place to live. No individual can successfully take the "cure" if he is worried about his family not having a decent place to live or sufficient food to eat.

The diagnosis and treatment of tuberculosis is pretty well established, and one looks for little or no spectacular progress in the near future; however, the two factors, education and rehabilitation, lag far behind, and there is a great deal of room for improvement in order to bring about the control of tuberculosis.

Most hospitalized cases of tuberculosis are a direct reflection on the inefficiency of early case finding, due in no small part to our ineffective educational program.

Many discharged tuberculous patients that have relapses are a direct reflection of improper rehabilitation and inadequate relief budgets due to a lack of understanding and cooperation of social, relief and welfare agencies, or to inadequate funds.

There can be no question that more progress in the control of tuberculosis in the immediate future is possible through education and rehabilitation than through diagnosis and treatment.

It costs approximately $80,000,000 to operate the tuberculosis hospitals in the United States during 1940. Knowing that there are between 500,000 and 650,000 people sick with tuberculosis in the United States, with approximately 100,000 hospital beds available for tuberculous patients, you can readily see that only one-fifth to one-sixth of the total number of all tuberculous patients in the United States could be hospitalized at any given time. This means that from 400,000 to 500,000 tuberculous patients are sick at home at any given time. The lives and future of many of these individuals, as well as the contacts in their homes, depend to a large degree on the relief budgets made available to them and their families.

Anyone who has it within his power to help correct these conditions and fails to do so, commits a serious offense against society. Either directly or indirectly, they are wasting taxpayers' money, to say nothing of the human suffering and loss of lives that are partly their responsibility. The efficiency of a relief or welfare department should not be judged by how little it costs a community, but by the actual good accomplished.

SOME OF THE THINGS WHICH MAKE FOR INADEQUATE RELIEF BUDGETS IN TUBERCULOUS FAMILIES

The first impression on this important question is that it is entirely due to a lack of money to supply an adequate budget, but one is inclined to believe that a lack of thorough knowledge and a sympathetic understanding of the real problems of tuberculosis by relief and welfare workers is equally responsible. Many relief and welfare agencies put the tuberculous families in the group constituting health problems. They do not see or understand that this is a dangerous procedure. The cardiac, nephritic or diabetic does not carry the danger of infecting others, as does the tuberculous patient if a relapse is brought about by the lack of an adequate diet or poor living quarters.

Very few relief or welfare workers know anything about either nutrition or tuberculosis. This is no reflection on these individuals, as their training has been along other lines. There can be reflection on the heads of these departments when a minimum standard budget cannot be supplied, if they do not forcibly call this fact to the attention of the proper authorities until it is corrected. The general tendency of many politicians to cut public agencies' budgets has been brought about by the heads of those agencies failing to educate the governmental officials properly and by failing to support their budget requests with clear cut facts and a thorough knowledge of the subject.

One further realizes that there are many family physicians who know little about nutrition and, unfortunately, less about tuberculosis. This constitutes a serious obstacle in recommending and obtaining adequate relief budgets for tuberculous families.

Then, there is a serious lack of effective coordination and cooperation between the various social, health, relief and welfare agencies with our hospitals and private physicians in handling tuberculous patients and their families. Clear cut cases are usually accepted by the particular agency concerned, but border-line cases, soldiers and sailors, aliens, transients, and non-residents are often neglected due to shifting of responsibility. One should not lose sight of the fact that these individuals are just as infectious as the readily accepted cases, and every effort should be made to handle them quickly and satisfactorily, in keeping with good public health procedures.

WITH OUR PRESENT KNOWLEDGE OF NUTRITION, DEVITALIZED FOODS, IMPROPER DIETS, INADEQUATE BUDGETS TO RELIEF FAMILIES, ETC.—THINGS TO DO

Certainly every effort should be made to correct these conditions as quickly as possible, because of the tremendous influence they have on the health and physical fitness of our nation. Better and more effective cooperation and coordination is now needed.

A start in the right direction was made many years ago when it became compulsory to add iodine to the drinking water in Switzerland. The addition of iodine to table salt and the educational campaign urging the use of more seafood, with its increased consumption, has benefited many people in this country, and more recently the "enriched" flour and bread are all procedures that will pay big dividends in health.

The greatest amount of good could be accomplished by making it mandatory to supply all people on relief with fortified or "enriched" milk and bread containing the minimum requirements of vitamins and essential minerals; and by an intensive educational campaign to create sufficient demands for these "enriched" foods to reach practically everyone in the lower economic groups. Then, as time goes on, the demand would become so universal as to reach all classes of people.

Strict scientific control of "enriching" these foods would probably insure the health of the next generation to a degree that could not be achieved in any other way.

The whole problem of relief could be materially improved if handled on a wholesale rather than on a retail basis, which would result in a saving to the taxpayer and at the same time afford better and more adequate relief budgets.

It has also been shown that when the consumer spends a dollar for food, less than 50 cents of it goes to the farmer. The cost of food is more than doubled between the farm and the consumer.[12] This indicates how worth while it would be to work out a more satisfactory system to reduce distribution costs.

Such a discussion as this would not be complete without reference to the fact that many people have been concerned over the large number of draftees that are now being rejected. The United States claims it has the highest standard of living, the greatest educational system, and the best medical care in the world. Yet a recent survey by the Public Health Service shows that nearly 43 percent of the selectees called for military service are being rejected because of physical and mental defects.[13] There can be no question that the health of these men is dependent to a very large degree, on the kind of diet consumed 15 to 20 years ago.[14]

Let us not make the same mistake today, nor in the future, that we made in the past. It can be corrected, but it will take the concerted efforts of all concerned.

Again I must remind you that it is not hard to determine what the relief budgets in tuberculous families should be, but the real problem is in getting it put into actual practice.

Great strides have been made and greater progress will be made when relief and welfare workers, nutritionists, dietitians, and doctors can think clearly in terms of adequate budgets and complete nutrition, with the direct bearing it has upon the economic loss, the alleviation of suffering, and upon the health and the future of our great Democracy.

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Tonsillectomy and Poliomyelitis

JOHN A. TOOMEY, M.D. and CARL E. KRILL, M.D.

THE question has been raised as to whether tonsillectomized patients are more susceptible to poliomyelitis.[1] There is an increasing literature upon this subject, a review of which will soon be presented in monograph form by Aycock[2] and therefore need not be detailed here.

Our records were studied to determine: (1) whether recent operations (tonsillectomy and adenoidectomy and possible extraction of the teeth), i.e., those done within 30 days prior to the onset of poliomyelitis, predisposed individuals toward the occurrence of the disease; (2) whether remote tonsil and adenoid operations, i.e., operations done previous to 30 days before the onset of the disease predisposed toward it; (3) if the disease had been contracted, the type it was. The material was obtained from the Children's Hospital of Akron and the Division of Contagious Diseases, City Hospital, Cleveland.

In the succeeding text, the words, "tonsillectomy and adenoidectomy", will be abbreviated to "T and A". "Children's" refers to the Children's Hospital of Akron and "City" to the Division of Contagious Diseases, City Hospital, Cleveland.

RESULTS

The experiences of 14 years taken from Children's and those of one year (1941) at City are tabulated in Tables 1 to 6 inclusive. The total admissions are combined in Table I. Seventeen of the 210 cases at Children's died, a rate of 8.1 per cent. Eighteen of 220 cases died at City and curiously enough, the rate was but slightly higher, 8.1 per cent.

TABLE No. 1
TOTAL ADMISSIONS OF POLIOMYELITIS PATIENTS

	Non. Par.	Bulbar Types Bulbar only	 Bulbar spinal	 Bulbar enceph.	Spinal
Admitted to:					
Children's Hospital, Akron (14 years)	51	27			132
City Hospital, Cleveland (1941)	29	47	17	3	124

	Total	Mean Age Hospital Patient	Mean Age County Patient	No. of Deaths
Admitted to:				
Children's Hospital, Akron (14 years)	210	6.6		17(8.1%)
City Hospital, Cleveland (1941)	220	11.3	10.1	18(8.1%)

The Authors

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- **Dr. Krill, Akron, Ohio,** is a graduate of University of Pennsylvania School of Medicine, 1930; staff member of Children's and St. Thomas Hospitals, Akron.

When the morbidity rate is considered, it is found that at Children's it was higher in the operated bulbar (69.5 per cent) than in the non-operated bulbar group (30.5 per cent). This was also true at City Hospital where in a group of 67 patients with bulbar types of the disease, 44 or 65.6 per cent were in the operated and 23 or 34.3 per cent in the non-operated group (Table 2).

When the mortality rate was considered in relation to previous operations in patients with bulbar types of the disease, it was found that it made little difference whether the tonsils were in or out. In fact, if mortality were the only criterion it could be said that death was less apt

TABLE No. 2
PATIENTS WITH BULBAR TYPES OF POLIOMYELITIS

		T & A and Other Operations No. of Cases	 No. of Deaths	 Per Cent
Cases with complete history records Admitted to:				
Children's Hospital, Akron (14 years)	23	16 – (69.5%)	8	50%
City Hospital, Cleveland (1941)	67	44 – (65.6%)	9	20%

	No T & A No. of Cases	 No. of Deaths	 Per Cent	History Records Unavailable No. of Cases	 No. of Deaths
Cases with complete history records Admitted to:					
Children's Hospital, Akron (14 years)	7 – (30.5%)	5	71%	4	2(50%)
City Hospital, Cleveland (1941)	23 – (34.3%)	9	39.1%		

Read before the Section on Pediatrics, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, April 28-30, 1942.

Aided in part by a grant from The National Foundation for Infantile Paralysis.

TABLE No. 3

PATIENTS WITH T & A WITHIN 30 DAYS PRIOR TO ADMISSION

	Non. Par.	Bulbar Types Bulbar only	Bulbar spinal	Bulbar enceph.
Admitted to:				
Children's Hospital, Akron (14 years)		5		
City Hospital, Cleveland (1941)	1	5	3	0

	Spinal	Total	No. of Deaths
Admitted to:			
Children's Hospital, Akron (14 years)		5	3 (60%)
City Hospital, Cleveland (1941)	3(5)*	12	1**(7.15%)

*Note: Additional two spinal types had
(a) Teeth scraped 5 days before
(b) Appendectomy 7 days before
Not considered in total 12 which had tonsil operations only.

**This patient, the only one of this group who died, had had several teeth removed.

to occur in individuals who had had a previous T and A.

Fourteen or 82 per cent of the 17 patients who had had a T and A within 30 days prior to the onset of the disease developed bulbar paralysis—five or 100 per cent at Children's; nine or 75 per cent at City Hospital (Table 3). Two others had had operations, one having had the teeth scraped and another an appendectomy. These are mentioned, but not included in the totals.

At Children's, 16 or 34 per cent of the 47 cases operated prior to 30 days and at City Hospital, 36 or 41 per cent of 87 such cases had bulbar poliomyelitis (Table 4). At Children's, eight or 50 per cent of the bulbar group died. This represented but nine or 17 per cent mortality of the total number of cases in this group. At City likewise, although eight that died were in the bulbar group, they represented but 22 per cent of the number of cases in this category. There was a mortality rate of only 9.1 per cent for the total number of patients.

TABLE No. 4

PATIENTS WITH T & A PRIOR TO 30 DAYS BEFORE ONSET OF POLIOMYELITIS

	Non. Par.	Bulbar Types Bulbar only	Bulbar spinal	Bulbar enceph.
Admitted to:				
Children's Hospital, Akron (14 years)	10		16	
City Hospital, Cleveland (1941)	12	26	8	2

	Spinal	Total	No. of Deaths
Admitted to:			
Children's Hospital, Akron (1941)	21	47	8 (17%)
City Hospital, Cleveland (1941)	40	88	8 (9.1%)

Note: At Children's Hospital all deaths were bulbar types, the mortality in this group being 50%. At City Hospital the 8 deaths were in the bulbar group, but this represented only 22% of the total number of this type.

TABLE No. 5

PATIENTS WHO DID NOT HAVE T & A BEFORE ADMISSION

	Non. Par.	Bulbar Types Bulbar only	Bulbar spinal	Bulbar enceph.
Admitted to:				
Children's Hospital, Akron (14 years)	38	7		
City Hospital, Cleveland (1941)	16	16	6	1

	Spinal	Total	No. of Deaths
Admitted to:			
Children's Hospital, Akron (14 years)	95	140*	7 (5%)– 5 bulbar 2 spinal
City Hospital, Cleveland (1941)	79	118	9 (7.6%) – 9 bulbars

*Note: There were no available records at Children's Hospital of 3 non-paralytic, 4 bulbar and 16 spinal, 2(8%) of which died.

Seven or 5 per cent of 140 non-operated patients admitted to Children's and 23 or 19.4 per cent of 118 similar types of patients admitted to City, developed bulbar poliomyelitis (Table 5). Here again most of those who died were in the bulbar group—five of the total seven at Children's and all of the nine at City.

If only the mortality of the group that had spinal or non-paralytic poliomyelitis, etc., is considered, the rate seems insignificant—2 per cent at Children's and zero at City (Table 6).

DISCUSSION

To explain the relationship between poliomyelitis and tonsillectomy, one may consider two possibilities: (1) that poliomyelitis occurs as an accident during the course of mass immunization or exposure, during which time most or all of us may harbor the virus; (2) that poliomyelitis has nearly an obligate affinity for grey

TABLE No. 6

PATIENTS WITH SPINAL TYPES OF POLIOMYELITIS, EXCLUSIVE OF BULBAR TYPES

	No. Who Had T & A Cases	Deaths	Per Cent
Admitted to:			
Children's Hospital, Akron* (14 years)	21	0	0
City Hospital, Cleveland (1941)	58	0	0

	No. Who Did Not Have T & A Cases	Deaths	Per Cent
Admitted to:			
City Hospital, Akron* (14 years)	95	2	2
Children's Hospital, Cleveland (1941)	95	0	0

*Note: Records were not available for 16 patients at Children's Hospital, none of whom died.

fibers of either medullated or unmedullated nerves.

Operations expose the axis-cylinders of cut peripheral nerves and thus possibly make absorption by grey fibers much easier; or, because of the operation, new vascular networks are laid down and this accompanied by a deposition of new unmedullated fibers, the type which easily absorbs virus.

The experimental evidence tending to show a relationship between poliomyelitis and operations on the upper respiratory tract is negative. Sabin removed the tonsils of monkeys and was not able to infect these animals when he painted virus over the operated areas. We removed the tonsils in six M. rhesus monkeys and then flooded the area between the cupped pillars with a 10 per cent suspension of virus. This was done daily for five days, but the disease was not produced, thus confirming Sabin's work. The latter injected the tonsils and produced bulbar poliomyelitis, results which again we were able to confirm in three experiments. The injections in these instances were made into the substance of the gland and under tension. Perhaps, because of this, the virus contacted grey fibers or was held longer at one place, so that absorption could occur. Injections directly in the vagus[3], into the papillae of the tongue and into the substance of the seventh nerve produced bulbar, bulbar and seventh nerve paralyses, respectively, demonstrating that absorption might possibly be local.

We believe the reason that the monkey does not get the disease after tonsillectomy is because the experimental animal is not "saturated" with the virus prior to operation. Should we duplicate what possibly happens in the human and condition this animal by massive intravenous injections of the virus, successful takes might follow subsequent operations.

If the paralysis of poliomyelitis occurs as a result of the operation, then the virus may be in the patient himself prior to operation; be contracted from the operator, from assistants or from instruments used at the time of operation; or come in contact with the patient subsequent to operation. There is sufficient and convincing epidemiologic evidence to rule out the operator, his assistants and the instruments as causative factors, despite some interesting case histories.

Are patients exposed to virus after the operation? This connection cannot always be ruled out, although the recent Akron experience[4] seems to furnish some inferential evidence that it does not.

The remaining opinion is that the virus is present in most, if not all, of these patients at the time of operation. Sabin has stated that the disease occurs in the human because the virus is already present, and with this dictum we agree. It presupposes the presence of the virus in the community, a virus against which most of us are immune. This is not too fanciful, since Theiler[5] has expressed similar views following his experience with mouse encephalitis.

There is disagreement as to whether the tonsils possess some mechanical, chemical or biologic protective quality. It is futile, however, to discuss these points since the criteria are difficult to evaluate.

CONCLUSIONS

There were more individuals who had had tonsillectomies and adenoidectomies within 30 days prior to the onset of poliomyelitis, who developed a bulbar type of this disease than could be explained on the basis of mere chance or random sampling.

In our locality, it would be advisable to do tonsil operations in the late Spring.

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Manual on Kenny Treatment Prepared

A manual describing the essential principles and details of the Kenny method for the treatment of poliomyelitis has been published by the National Foundation for Infantile Paralysis. The authors are: Dr. Wallace H. Cole, professor of surgery and director, Division of Orthopedic Surgery, University of Minnesota; Dr. John F. Pohl, clinical instructor of orthopedic surgery, University of Minnesota, and director of Infantile Paralysis Clinic, Minneapolis General Hospital; and Dr. Miland E. Knapp, clinical assistant professor of radiology and physical therapy and Director of Training Courses in Kenny Technique, University of Minnesota. The manual was prepared on the recommendation of the Medical Advisory Committee of the National Foundation, which, following the study of a report submitted by Dr. Cole, officially endorsed Miss Kenny's treatment for poliomyelitis in the acute stage. Copies of the manual will be sent to members of the medical, nursing and physical therapy professions on request to the Foundation, 120 Broadway, New York.

He is the best physician who is the best inspirer of hope.—S. T. Coleridge.

Generalized Peritonitis as a Complication Of Malignant Hypertension

Case Record Presenting Clinical Problems

SIMON KOLETSKY, M.D.

THE patient, a white male, 35 years of age, was first admitted to University Hospitals June 3, 1940, and discharged June 13, 1940. His complaints on admission were headache and high blood pressure. The headaches were bitemporal in location, of three year's duration, and had become very severe in the past year. Physical examination revealed an enlarged heart and a blood pressure of 230 systolic and 140 diastolic. There were hemorrhages, exudate and arterial thickening in the eyegrounds. Laboratory examination revealed normal white and red blood cell counts, a negative Wassermann reaction, a blood urea nitrogen of 19.5 mg./100 cc., and a urea clearance 58 per cent of normal. The patient was treated symptomatically and discharged in a slightly improved condition.

The final admission was on May 18, 1941 and he died on the following day. Since discharge from the hospital, he remained at bed rest but the headaches persisted and he developed nausea, vomiting and anorexia. Ten days before admission he began to have diarrhea with ten to twelve bowel movements a day and with small amounts of fresh blood in the stool. For the past five days there was severe nausea and pain in the abdomen. At the start the latter was most marked in the right lower quadrant but soon became generalized.

On admission the temperature was 38.2, pulse 120, respirations 26 and blood pressure 150 systolic and 110 diastolic. The patient was emaciated. The abdomen was distended, tympanitic and tender; there was point tenderness over McBurney's region. Considerable pain was elicited on rectal examination and the pain was referred to the right lower quadrant. Laboratory examination revealed a white blood cell count of 13,000 with 81 per cent polymorphonuclear leucocytes; a red blood cell count of 2.8 M. and hemoglobin 55 per cent; urea clearance was 6 per cent of normal, and the blood urea nitrogen 76.5 mg./100 cc. X-ray of the abdomen was negative. The urine showed 4 plus albumin and occasional red and white cells.

On admission it was thought that the patient had generalized peritonitis, probably from acute appendicitis. However, because of the uremic state and because the peritonitis was apparently of five day's duration, no operation was performed. During his hospital stay he had persistent severe diarrhea, generalized abdominal pain and vomited on several occasions. He died 24 hours after admission. The final clinical diagnoses were: hypertension; arteriosclerotic heart disease with nephrosclerosis; acute appendicitis with rupture and generalized peritonitis.

At autopsy (7409), the diagnoses were: diffuse fibrino-purulent peritonitis with focal abscesses; acute necrotizing arteriolitis of distal ileum with hemorrhagic necrosis and perforation; marked arterial and arteriolar nephrosclerosis, with superimposed acute necrotizing arteriolitis; generalized arterial and arteriolar sclerosis, cardiac hypertrophy and dilatation (380 grams); chronic passive hyperemia of viscera.

The terminal ileum for a distance of one meter showed diffuse hemmorhagic necrosis. The bowel was grayish-red in color. No thrombosis was found in the regional or in the main mesenteric arteries or veins. The appendix revealed no evidence of intrinsic disease. In some places the ileum was gangrenous and showed perforations in the wall which appeared to be premortem. Microscopic sections revealed marked thickening of the walls of the arteries and arterioles with hyaline necrosis and frequent obliteration of the lumen by thrombi. All layers of the intestine were necrotic and hemorrhagic.

The kidneys showed marked arterial and arteriolar nephrosclerosis, each weighing 90 grams. The outer surfaces were irregularly granular and showed numerous petechiae. Microscopically there were extensive scarring and marked disease of the small arteries and arterioles, which were the seat of hyaline necrosis. Similar changes in the blood vessels were found in various other regions of the body.

COMMENT

This case is one of malignant hypertension in a young individual. There was diffuse vascular disease of chronic nature as well as superimposed acute necrotizing arteriolitis. The vascular changes were especially marked in the kidneys and the intestines.

Diffuse necrosis of the bowel is a rare complication of malignant hypertension. Only one similar case was found in a review of 4000 consecutive autopsies at the Institute of Pathology in the past eleven years. In the present case the lesion was situated in the terminal ileum. The necrosis was ischemic in origin and due to intrinsic disease of the small arteries and arterioles, most of which were the seat of thrombosis. The clinical picture was that of a diffuse peritonitis produced by a ruptured viscus, apparently the appendix. Positive differentiation between ruptured appendix and ruptured terminal ileum is practically impossible. However, necrosis of intestine and generalized peritonitis complicating malignant hypertension presumably occurs only in the terminal or uremic phase of the hypertensive disease.

From the Institute of Pathology, Western Reserve University and University Hospitals, Cleveland, Ohio.

This is the tenth of a series of "Case Records Presenting Clinical Problems," selected by Dr. H. T. Karsner from the Clinical Pathological Conferences of the Institute of Pathology, Western Reserve University and University Hospitals.

The Management of Heart Disease in Review

ROBERT C. KIRK, M.D.

As the population of these United States grows older, heart disease becomes of ever increasing importance in the minds of all. At the present time over one-third of all deaths are attributed to heart failure. It is impossible to believe that these people will all be seen by heart specialists. It is not necessary that they ever should. It seems that the part to be played by the specialist in this tremendous area of mortality is one of dissemination of specialized techniques and knowledge to the great army of physicians who have dedicated themselves to the relief of suffering, which in its immensity forbids their close attention to every old or new idea concerning any single organ. For this reason, if no other, it seems worthwhile to attempt from time to time to make available new information or to renew old skills helpful in the diagnosis and management of our greatest enemy, "heart trouble."

Texts on heart disease are legion. Many of today are written by our finest writers whose clinical experience has probably never been surpassed. Again it seems that actively practicing physicions cannot read them with the thoroughness which they warrant. Too many are profusely illustrated by orthodiagrams and electrocardiograms which rightly or wrongly many physicians confess to a considerable ignorance. The question may well be asked if cardiology is as complicated as it appears to be? The answer is no. Writers like Lewis, Levine, Mackenzie, White, Blumgart, Wilson, Marvin, to mention a few, devote much of their time to simplification. It is a notable trend in a profession which is appearing to become ever more difficult to master.

When the compensatory mechanisms are inadequate and actual circulatory failure develops, the heart is said to be decompensated. The failure in the circulation may be acute. The cardiac output may fall below a necessary minimum with marked rise in venous pressure and venous engorgement noticed in the peripheral veins but with no obvious edema. Such failure may be seen in sudden dilatation of either or both ventricles, seen in severe rheumatic myocarditis, excessive heart rate, paroxysmal tachycardia, acute myocardial infarction and massive pulmonary embolus.[1] Cardiac decompensation may more commonly on the other hand develop slowly and progressively. Raised venous pressure with visceral engorgement and consequent edema are predominant, and the condition is called congestive heart failure. The signs and symptoms noted include breathlessness, particularly at night, difficulty in breathing when lying down, cough, and swelling of the legs and abdominal organs. The venous pressure is usually raised, the liver is enlarged, and pulmonary congestion is present. The heart rate is fast, and it may be irregular in rhythm. The mucus membrances and the nail beds show cyanosis.

The Author

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In 1842, James Hope stated[2] "So long as the left ventricle is capable of propelling its contents, the corresponding auricle, being protected by its valve, remains secure . . . but when the distending pressure of the blood preponderates over the power of the ventricle itself, its contents, from not being duly expelled, constitute an obstacle to the transmission of the auricular blood. Hence, the auricle becomes distended and the obstruction may be propagated backward through the lungs to the right side of the heart, and there occasion the same series of phenomena". This theory of back-pressure failure is subscribed to by the majority of the cardiologists[3] and physiologists[4] and for the purpose of this discussion will be taken for granted.

FAILURE OF THE LEFT VENTRICLE

Failure of the left ventricle was first described by Hope nine years before his preceding classical remarks on back pressure failure. It may occur before failure of the right ventricle. It results in pulmonary congestion with little or no engorgement of the peripheral veins. This is the basic factor in the production of paroxysmal dyspnea, usually nocturnal, commonly referred to as cardiac asthma. Coughing is the most important pre-disposing cause since it produces a marked increase in the respiratory rate, which accelerates the return of the venous blood to the right side of the heart. This aggravates the pulmonary congestion, thus promoting the possibilities for continuation of the coughing, leading to a vicious cycle, which may progress to pulmonary edema and death.[5] The apprehension which is secondary to the coughing and the constricting tight feeling in the chest deserves particular emphasis in this syndrome of paroxysmal nocturnal dyspnea.

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Wood, Wolferth, and Terrell[6, 7] have advanced a possible cause of paroxysmal dyspnea due to various unfavorable recumbent positions resulting in a twisting of the heart about its axis.

The signs and symptoms of this condition are primarily confined to the pulmonary circuit. There is an accentuation of the second pulmonic sound which is present even in systemic hypertension. There is an elevation of the pulse often times resulting in gallop rhythm of the diastolic type, or in pulsus alternans. Both of these conditions have a very serious prognosis and the younger the patient the worse it is. Dyspnea is the key symptom.[7] There is very commonly Cheyne-Stokes breathing. A grayish cyanosis is present with frequently, warm hands, indicating that the peripheral circulation is not particularly impaired. Most important of all are the presence of basal pulmonary rales which in the progressive forms of pulmonary edema may be heard, over a period of time as short as fifteen minutes, to gradually extend up to the apices of both lungs, accompanied by pinkish, frothy sputum. Patients have been known to drown in their own secretions.

Because treatment is predicated upon careful knowledge of the physiology, particularly of dyspnea and orthopnea, a discussion of the mechanisms of these symptoms follows: Dyspnea or labored breathing implies the use of the accessory inspiratory and expiratory muscles. It occurs when the volume of air breathed becomes more than a certain proportion of the maximum amount which can be breathed. It is ordinarily the first and often the last subjective manifestation of heart failure. Because the symptoms and signs of pulmonary and cardiac insufficiency mimic each other so closely,[8] being dyspnea, orthopnea, cyanosis, and cough, brief mention should be made of a recent contribution on this subject[9]. Differentiation can be greatly simplified by two tests. The venous pressure is not elevated and the circulation time is not increased in uncomplicated obstructive emphysema and pulmonary fibrosis. The reverse is true in cardiac insufficiency. Dyspnea usually causes the patient more distress than all the other symptoms combined. For the purposes of clarity dyspnea on exertion should be distinquished from dyspnea at rest as the latter includes such well known phenomena as orthopnea or inability to breathe lying flat, and paroxysmal dyspnea, or cardiac asthma. Because of the underlying similarity of these conditions the explanation of orthopnea will be made because it has been a more easily demonstrated clinical problem. Several explanations of orthopnea have been advanced, but the following paragraph is an attempt to point out the fallacies inherent in most of them and to show reason for accepting the work of Tinsley Harrison and his associates from Vanderbilt University.[10]

Because there is no difference in the arterial saturation of the blood in the recumbent and the upright postures, because the known diminished cerebral flow in anemia and shock are not accompanied by orthopnea, because there is no significant change in cardiac output in the two positions, it would seem that the best explanation of orthopnea rests on the known decrease in vital capacity and increase in ventilation which usually occurs when a patient with cardiac disease changes from the sitting to the recumbent posture. The decrease in vital capacity is dependent upon an increased degree of pulmonary congestion due to a redistribution of blood in the lungs from the lower parts of the body. The increase in ventilation results from a reflex from its site of origin in the congested lungs through the vagus to the respiratory center. This reflex causes rapid breathing and greater ventilation per minute and encroaches still further upon the respiratory reserve by increasing the quotient **ventilation/vital capacity.** Reid[11] advances a further reason for dyspnea based on the fact that there is a hindrance to the on flow from a mechanical compression of the pulmonary veins by cardiac enlargement. In recumbency the heart rests on these veins whose radicals are only 1½ centimeters long.

Paroxysmal nocturnal dyspnea or cardiac asthma is occasionally the first symptom of beginning left heart failure and its recognition as such is of the greatest importance to the patient. It is at this point that the physician can render the utmost service. Occurring as it does in the middle of the night, awaking the patient from a sound and apparently restful sleep, its explanation would seem paradoxical to that of dyspnea on exertion. Actually from what has been already stated about orthopnea it is apparent that in deep sleep a more unfavorable position of decreased vital capacity may be assumed for a greater length of time, which combined with a marked lowering of the blood pressure, effects an increase in the ventilation rate which does not arouse the patient until he is desperately short of breath. The anxiety attendant upon the awaking may be at times so great as to result in overactivity to such an extent as to cause pulmonary edema with possibly death from drowning in these secretions. For this reason the use of heavy sedation in "cardiacs" who do not have the benefit of adjustable hospital beds is to be routinely condemned.

Treatment of acute left ventricular failure is as important an emergency measure as the recognition and treatment of a perforated, hollow viscus. It consists primarily of the administration of morphine in one quarter grain—(0.015 gm.) doses which may be repeated in 15 minutes or longer as needed. Dramatic cessation of symptoms frequently follows the intravenons administration of one eighth grain (0.007 gm.) of morphine sulphate. It is a justifiable procedure. The importance of morphine in this condition is due to its several effects. It eliminates anxiety and restlessness, mitigating the effect of these on the blood pressure. It depresses the respiratory center. It suppresses cough.[12] Further measures are the intravenous use of aminophyllin alone or combined with 50 per cent glucose. These reduce the venous pressure, increase the coronary flow, and frequently stop the Cheyne-Stokes breathing. More recently the use of a teaspoonful three to four times a day of iodized caffeine has been advocated[13] with good results in breaking up the Cheyne-Stokes type of respiration. The use of venesection of from 400 to 700 cc. of blood is an excellent means of stopping the forward flow of blood into the already congested pulmonary circuit. The use of an oxygen tent or oxygen by nasal catheter is often times very effective. Adrenalin is contraindicated in disease of the coronary arteries[14]; otherwise, it may be of considerable value in pulmonary edema. The use in the home of venostasis by the four-cuff extremity method is very valuable. It consists of placing a rubber band or the blood pressure cuff on all four extremities high up, tightly enough to impede the venous return without cutting off the arterial flow. This may be kept on for 10 or 15 minutes trapping large amounts of blood in the extremities, and allowing the over pressed left ventricle to get a "breathing spell" until supportive measures can be effective.

FAILURE OF THE RIGHT VENTRICLE

Right upper quadrant pain, precipated by exertion and relieved by rest may be a presenting symptom in early right-sided heart failure comparable to dyspnea on effort in early left-sided heart failure.[27]

Distension of the peripheral veins always accompanies failure of the right ventricle and is diagnostic. There is frequently engorgement of the liver which may be pressed upon with a subsequent over-filling of the cervical veins noted following this manual procedure. Fisher[15] points out that the jugular veins will begin to pulsate early in failure but as it increases, the part of the vein closest to the heart becomes over distended and stops pulsating while the more distal portion, e.g. those veins in the ear lobe, pulsates more strongly. Dyspnea with an efficient left ventricle is slight or absent. The oxygen lack in right ventricular failure sometimes induces a state of somnolence akin to stupor which is never present in left ventricular failure. The cyanosis varies from the cherry of early mitral stenosis to the purple of acute pulmonary embolism.

CYANOSIS

The term cyanosis simply designates a blue color imparted to the skin or mucous membranes by a change in the chemical composition of the blood which disappears when the blood is expelled from the tissue. Four factors should be kept clearly in mind:[16]

1. The total hemoglobin content of the blood, which affects greatly the appearance of cyanosis. Thus a patient with a very high hemoglobin may be cyanotic and not have anoxemia, while a patient with a low hemoglobin, below 5 grams, may be suffering from anoxemia and still remain free from cyanosis. (It has been found that about 5 grams of reduced hemoglobin in each 100 cc. of blood is the threshold level at which general cyanosis first appears.)[17]

2. The degree of oxygen unsaturation of arterial blood coming from aerated lung areas. This is affected by the oxygen tension in air, rate and depth of respiration, permeability of alveolar walls and partial obstructions of the bronchial tree.

3. The proportion of blood passing from the right to the left side of the heart through unaerated channels. This is affected by congenital malformations of the heart, atelectasis, pulmonary infarction and lobar pneumonia. (This is usually an intense purplish cyanosis.)

4. The oxygen consumption in the capillaries, which is influenced by peripheral vascular conditions. (Dilation of the superficial venules and venous ends of the capillary loops.)

Cyanosis may or may not be present during congestive failure. It is more often seen in elderly patients with some chronic pulmonary disease, or in rheumatic heart disease. It is not common in uncomplicated hypertensive or syphilitic heart disease. The ashen gray type of cyanosis seen in acute heart failure such as follows coronary thrombosis is due to the diminution of the cardiac output and consequent increase in the amount of reduced hemoglobin in the venous blood.

Goldschmidt and Light[18] state that the faint reddish blue tint of the lips and finger nails commonly seen in heart failure is not associated with alterations of the oxygen content of the blood but is due to stasis in the hands because of the increase in venous pressure and consequent relative increase in the size of the venules (which contain bluer blood) as compared to the size of the capillaries. This factor alone accounted for the cyansosis in six of 20 cases of stenosis recently reported.[19]

Edema is greatest in chronic right ventricular failure resulting in tremendously, massively, edematous legs and thighs with not infrequently ascites of considerable amounts. Because of the prominence of edema in right ventricular failure a discussion of the physiology of this condition will be added before treatment is discussed.

EDEMA AND EFFUSION

Fluid is always present in the tissue spaces, but edema is present when there is more fluid than is normal. The elaboration of edema in congestive heart failure is a complex phenomenon[20] which is related to a low level of the serum proteins (lowered osmotic pressure), the increased venous pressure, the decreased rate of lymph flow, the resistance of the tissues to stretching, increased capillary permeability (anoxemia), and the intake of water and salts. The most important factor is the elevation of the pressure in the capillaries which increases the tendency of water to pass into the tissue spaces.[21] If low serum proteins resulting from malnutrition, hemorrhage, excessive urinary excretion (proteinuria), or severe liver diseases are excluded; as well as venous stasis resulting from varicosities of the extremities, cirrhosis of the liver, lymphatic block; also excessive ingestion of water or salt; and damage to the capillary wall as in burns, freezing and allergic states[22]; edema may reasonably be attributed to cardiac failure.

In addition to dependent peripheral edema and passive congestion of the visceral organs, a very common finding in chronic cardiac decompensation is right sided pleural transudation. Bedford[23] has broken this fact down into the following interesting statement: Left heart failure with normal rhythm favors left sided pleural effusion. Left heart failure with auricular fibrillation favors right pleural effusion. In hypertension with normal sinus rhythm, left chest effusion is twice as common as right chest effusion but in those who are fibrillating, right chest effusion is three times as common as left chest effusion. In other words with normal rhythm the chances of finding a left pleural effusion are greater and conversely in auricular fibrillation right chest effusions are the most common findings. An excellent working explanation for the right sided pleural effusion is given by William Dock[24]. By careful anatomical measurements he has found that the venous outflow from the right lung in the right lateral recumbent position (a favorite with cardiac individuals) must be lifted 10 centimeters or more to reach the left ventricle and that from the left lung, when in the left lateral position, need be lifted only 5 centimeters. Therefore, the average venous pressure needed to maintain the flow of blood will be much higher in the right lung than in the left even if the individual spends equal periods lying on the two sides.

Treatment of right ventricular failure consists of digitalis given by mouth preferably; if the patient is vomiting or otherwise unable to swallow it may be given intramuscularly. There are no other drugs which are comparable in action with digitalis and its use by these two methods takes the place of the advantages which are ascribed to other things, such as strophanthus or ouabain.[25] Diuretics are rarely of service in acute heart failure, but may be used, of course, over the progressive course of the disease. Abdominal paracentesis seldom avails in the actual failure. Venesection is excellent and one of the most important things that can be done in right ventricular failure. The use of the limb bands as mentioned in the treatment of left failure is not of particular value in this type of failure.

The treatment of the edema results in a complex therapeutic regimen which includes the reduction of capillary pressure, a limitation of fluids and sodium chloride, the restoration of the hemoglobin level, and adequate protein ingestion [22, 26]. The reduction in capillary pressure by restoring compensation is accomplished in many ways. These include restriction of activity, that is by lessening the work of the heart, by digitalis as already indicated, by removing pleural and peritoneal exudates, by reducing weight and by the use of diuretics.

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Treatment of Retained Placenta

With Discussion of the Majon-Gabastou Method of Intracordal Saline

WILLIAM F. SHANNON, M.D.

RETAINED placenta has long been recognized by the obstetrician as one of the most dangerous complications of the third stage of labor. It is dangerous not only from the standpoint of immediate hemorrhage and shock, but also from the possible accidents incidental to its manual removal, of which infection, inversion, and perforation of the uterus are most common. The situation was aptly defined by Goethals[1] in 1923 when he said, "The difficulty in the problem of manual extraction lies in the fact that for whatever indication the operation is undertaken one can never know beforehand, in a large proportion of cases, just what condition will be met after the extraction is begun. Separation and extraction may prove to be a very simple matter. One portion of the placenta may be tightly adherent to the uterine wall, or the condition may prove to be that of true adherent placenta which may cause death from shock, hemorrhage, rupture of the uterus, or all three, in the operator's vain attempts to find the line of cleavage between the weakened uterine wall and the placenta".

ETIOLOGY

Many factors have been implicated in the past as causative agents in retention of the placenta. These may be found in some of our standard text books of obstetrics. Actually, however, very little is known as to its exact cause. For the sake of clarity Schumann[2] has conveniently divided retained placenta into three groups.

I. Incarceration of the placenta—occurs when the organ is completely separated from the uterine wall and is imprisoned within the cavity of the fundus, due either to abnormal contraction of the cervix, the presence of a high contraction ring, or when sufficient power for its expulsion is lacking.

II. Retained adherent placenta—exists when the organ remains attached to the uterine wall and resists physiological efforts of separation. This may be due either to the presence of an unduly long and strong anchoring villi, especially around the periphery, or to the lack of uterine contractions of sufficient force to cause separation.

III. True adherent placenta or Placenta Accreta—exists when the decidua basalis is either entirely absent or so imperfectly developed that the villi grow into the uterine musculature. Etiology of this condition is thought to be due to atrophy of the endometrium. This atrophy may be due to rapidly repeated pregnancies, previous abortions with curettage, previous manual removal and various forms of endometritis.

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Since true placenta accreta is a rare complication, having been seen only once in this clinic in the past fifteen years, the scope of this paper will be limited to simple incarceration and retained adherent placenta.

Uterine inertia or atony is probably responsible for the greater majority of these cases of adherent retained placenta. Uterine contractions are either entirely absent or are of such insufficient force as to incompletely strip the placenta from the uterine wall. In the majority of our cases this seemed to be true. Currie's[3] findings substantiate this, and he has emphasized that retention of the placenta quite commonly follows operative termination of a prolonged labor.

A less frequent finding is the so-called constriction ring or hour-glass uterus, the ring mechanically barring the complete extrusion of the already separated placenta. This may be due to the unnecessary handling and massaging of the uterus during the third stage. Possibly the routine use of pituitrin following the delivery of the child may be a contributing factor, especially so in cases hypersensitive to this drug.

Occasionally a full bladder will interfere with the completion of the third stage. This may be eliminated by the routine use of the catheter before delivery and again if the third stage is long.

The question of the time interval one should wait before resorting to the operation of manual removal has long been a bone of contention. Polak[4] and others advocate waiting even as long as several days with the hope that the placenta will separate spontaneously. This, however, leads to much discomfort of the operator and danger to the patient for the latter must be watched constantly for bleeding and preparation for operative removal made ready in case intervention is necessary at any time.

While opinions still differ, most authorities now agree that the manual removal is indicated

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when the third stage is prolonged from one to two hours after the delivery of the child. If bleeding to a marked degree occurs at any time, immediate manual removal is indicated. Schumann has cut down the time interval from one hour to forty-five minutes with gratifying results.

The case of intrapartum infection again presents a problem to the harassed accoucheur already confronted by a prolonged third stage. Should manual removal be done after the lapse of the usual time interval, or should the patient be treated conservatively and the policy of watchful exectancy be followed? Opinions here likewise are divergent. Some recommend immediate removal, but the greater majority wait even as long as several days with the hope that the placenta will separate spontaneously. However, if while following the conservative policy bleeding should occur, the attendant's hand is necessarily forced, and the operation is all the more dangerous because of further prolongation of the placental stage.

That the operation of manual removal of the placenta is a serious one, is borne out by the various high morbidity and mortality statistics reported in the literature. The morbidity rate varies from 35 per cent in the American reports to 45.2 per cent in the European literature. Bumm[5] reported a mortality rate of 10 per cent, and Currie as high as 16 per cent. On the other hand, Shie,[6] in Oslo, reported 189 cases of manual extraction of the placenta with the death of three patients, or a mortality rate of 1.58 per cent.

This high morbidity and mortality is explained by Williams[7] on the ground that: in ordinary operations, such as forceps or versions, the hand when introduced into the uterus, is within the amniotic cavity, and consequently micro-organisms which may have been introduced along with it are cast off when the afterbirth is expelled; whereas, in manual removal of the placenta the hand is introduced between the fetal membranes and the uterine wall, and in separating the placental attachment, comes in direct contact with the thrombosed uterine sinuses. The latter may be regarded as blood serum culture tubes awaiting inoculation, so that if pyogenic bacteria are introduced abundant facilities for their further growth are offered.

MATERIAL

In a three and one-half year period beginning January 1, 1937, and ending June 30, 1940, 52 cases of retained placenta occurred in 7,776 total viable births at the Cincinnati General Hospital, an incidence of 0.06 per cent. Forty-three or 82.6 per cent of these cases occurred in multiparae, while nine or 17.4 per cent occurred in primiparae, a ratio of 5.6 to 1. This seems to be significant since the same ratio of admissions during this period was 1.7 to 1. Syphilis played little or no part, and there were no racial differences noted, the ratio being almost identical with the disparity between white and negro admissions.

Of this entire series, 37 were removed by manual extraction. The morbidity of this group, based on the standards of the American College of Surgeons, was 37.8 per cent. However, when one-day fevers are added, the total number of patients with temperature over 100.4°F. during the puerperium, was 21 or 56.4 per cent. One patient in this series died of acute blood loss combined with the shock of the operative procedure, a mortality rate of 2.7 per cent. A rare complication seen at this clinic following manual removal was a case of acute inversion of the uterus. This was recognized immediately, and when the patient's shock was combated, the uterus was replaced manually and packed. The packing was removed in six hours, and the patient made an uneventful recovery.

To avoid manual extraction of the retained placenta with its high morbidity and mortality, a small series of consecutive cases was treated according to the methods of Majon-Gabastou.

REVIEW OF THE LITERATURE

This method was first described by Asdrubali[8] in 1826, and independently by Majon[9] in 1827. The latter injected the umbilical vein with varying amounts of cold, acidulated water and attributed his success to the temperature of the fluid. Many of his contemporaries used this technique with various degrees of success. Some even substituted wine for water. Its use gradually fell into discard during the years because of the clumsy and often septic technique of the operator. In 1914 Gabastou[10] reported an improved and satisfactory technique for the hydraulic expulsion of the placenta. He injected physiological salt solution into the umbilical vein believing that the solution filled the placental vessels subsequently rupturing the walls of the small capillaries, and forming a retro-placental hydroma. Separation was achieved by the mechanical action of the hydroma and by the stimulation of uterine contractions by its heavy swollen contents. In 1923 Goethals[1] reviewing manual extraction of the placenta suggested using this method in an attempt to reduce the operation of manual removal. Jarcho,[11] in 1928, reported its successful use in three cases, believing that his success was due to the formation of a retro-placental hydroma similarly described by Gabastou. Currie,[3] who has reestablished this method successfully in a large series of cases, has shown that with the amounts of fluid ordinarily used the placenta remains intact, and expulsion is accomplished not by a retro-placental hydroma, but by the stimulation of uterine contractions. Although there have been no recent reports by American writers concerning this method, marked success has been reported in the European literature, notably by Serini,[12] McIntyre,[13] and Currie.[14]. The latter, who has reported the greatest number of cases, has reduced the morbidity and mortality rate of manual removal of the placenta from 45.2 per cent and 15.4 per cent to 8 per cent and 1.6 per cent, respectively, by the use of intracordal saline.

METHOD

On the Obstetrical Service of the Cincinnati General Hospital, a placenta is considered to be retained if it has remained within the uterus two hours after the birth of the child. During this period several attempts are made at Crede maneuver, both with and without anesthesia, to deliver the placenta. If marked bleeding occurs at any time during this period, manual removal is done at once. The patient is watched carefully at all times, and is in position for immediate operative removal. Thus, the cases in which intra-cordal saline was used would have been candidates for manual removal.

The method used in this clinic is a modification of Currie's technique, and requires no special equipment other than that usually found in the delivery room. A modified intravenous apparatus is used, consisting of a Kelly bottle containing sterile saline, rubber connecting tube, a three-way stop cock, 50 cc. syringe and a No. 18 short bevelled intravenous needle.

The patient is in position for operative delivery, the field prepared in the usual manner and draped with sterile towels, the cord is cleansed with alcohol and iodine at the distal end. It is imperative to leave some undamaged cord between the needle and the vulva in case it is necessary to reinsert the needle. While one assistant steadies the cord, the umbilical vein (the largest vessel in the cord) is pierced with the needle, and from 250 to 400 cc. of sterile physiological saline is quickly injected by means of a 50 cc. syringe and a three-way stop cock. As the fluid enters the placenta, the uterus is felt to rise up out of the abdomen. The cord is then clamped and the onset of the uterine contractions awaited. In the majority of cases, contractions were reestablished within 15 minutes, and the placenta expressed either spontaneously or with moderate suprapubic pressure.

Fifteen consecutive cases were treated in this manner with a successful result in 14 or 93.3 per cent. One case required manual removal 45 minutes after intra-cordal saline. The removal was greatly facilitated by the previous use of the saline as the cleavage plane was readily found. Of the 14 successful cases, only one had a temperature rise in the puerperium, a morbidity rate of 7.1 per cent. This might be explained on the basis of a 52 hour labor, five vaginal examinations and delivery by operative mid-forceps, rather than on the method used to remove the placenta. None of the cases in this series died.

COMMENTS

Fifty-two cases of retained placenta occurred during the three and one-half year period ending June 30, 1940. Thirty-seven of these were removed manually with a morbidity rate of 37.8 per cent. One case died from hemorrhage and shock, a mortality rate of 2.7 per cent. The remaining 15 cases were treated by injecting the umbilical vein with sterile saline through a modified intravenous apparatus. In 14 cases the placenta was expelled within 30 minutes, five spontaneously, and nine with slight to moderate suprapubic pressure. In one case the intracordal saline failed, and manual removal was resorted to. One patient in this group had a febrile puerperium, and this might be explained on the basis of prolonged labor and operative delivery as noted above. In this series no patient died.

CONCLUSION

1. The intra-cordal saline method, while not entirely replacing manual removal of the placenta, will materially decrease the incidence of this operation with its attendant high morbidity and mortality rate.

2. Fifteen cases were treated in this manner with a successful outcome in fourteen and a general uncorrected morbidity rate of 7.1 per cent. There were no deaths in this series.

3. The possibility of using this method in the case of intrapartum infection complicated by retained placenta is suggested.

4. The method as used in the Cincinnati General Hospital is described.

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Some Problems in the Development of a Plasma Bank

A Summary of Ninety Cases

JOHN A. ROGERS, M.D.

DURING the past four years medical literature has been literally flooded with reports of blood substitutes; especially plasma and serum. Most of these reports have emanated from teaching institutions where special departments with trained personnel exhaustively study the various phases of blood substitutes. This is certainly as it should be. However, there are a number of large or medium sized hospitals throughout the country where such facilities are not available. The Youngstown Hospital Association, comprising approximately 500 beds in two units, is one of these. The problems of setting up a blood or plasma bank in such an institution are many.

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PROBLEMS

1. One such problem is the physical make-up of the bank. All observers agree that adequate refrigeration is essential, but from this point there is a wide divergence of opinion as to type and volume of solution, type of plasma, collecting apparatus, antiseptics and whether or not plasma or serum should be used. DeGowin favors a dilute solution containing glucose and sodium citrate, a modification of the Rous-Turner solution. Others favor a much smaller volume of solution. Strumia advises the use of frozen plasma. Levinson suggests the use of serum. The British Armed Forces are using much more serum than plasma but the opposite is true in the U. S. Armed Forces. The collecting bottles vary greatly in size and shape. When a centrifuge is to be used for the preparation of plasma the usual volume of the bottle is 250 cc. When dilute plasma is to be prepared the capacity of the container averages one liter. The dumbell bottle should provide the ideal shape because hemolysis depends to a certain extent on the area of the zone of interface between cells and the supernatant plasma. However, this has not been found to be practicable because as the blood settles there will be a layer of red cells on the slanting surface of the upper chamber of the bottle. When plasma is removed these cells will be taken over by a suction into the storage bottle, and on administration may cause a reaction. Many observers prefer a prepared vacuum bottle, others a collecting bottle in which the vacuum is provided by the use of a hand bulb. Merthiolate or the sulfonamide compounds in the concentrations used to date exert very little bacteriostatic effect in preventing contamination. A careful technique in collecting the blood and preparing the plasma is the best method of insuring a sterile end product. The argument rages over the type of plasma to be used and whether or not to use plasma or serum. Dessicated plasma is an excellent product if for no other reason than its stability, but the chief disadvantages are the higher cost of the product, increased number of steps in the preparation and the necessity of installing bulky, expensive, time-consuming apparatus for the dessication process. Frozen plasma is perhaps the best product for use in a unit such as ours but here again some rather expensive equipment is needed and its preparation is more time-consuming. Serum in the hands of many has proved entirely satisfactory, and in some ways may be superior to dilute plasma.

2. Still another problem concerns the establishment of adequate trained personnel to prepare the plasma. In a nonteaching institution, especially in times of war, when internes are few and overworked, the management of the bank falls squarely on the shoulders of one or two individuals who can devote only part of their time to the management of the bank. At the start of the project considerable time and effort is required, but once the bank is in operation and the technique becomes simplified, much less expenditure of time is needed. Another extremely important point regarding the personnel of the bank concerns the number of individuals who handle plasma. This group should be kept as small as possible in order to minimize the danger of contamination. Close cooperation between the bank and the laboratory is needed because each flask of plasma must be checked for blood type, compliment-fixation reaction and culture.

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3. Another difficulty presents itself not only in maintaining an adequate supply of plasma but also in attempting to provide financial remuneration to make the bank a self sustaining unit of the hospital. The initial supply of blood may be provided by patriotic groups, service clubs, therapeutic phlebotomies or in some instances by bleeding two donors instead of one when a patient needs a transfusion, the second flask going to the bank. The barter system is our source of further supply. This works as follows: the recipient must, through his friends or relatives, replace at the earliest possible time, before hand if possible, an amount of blood equal to the amount of plasma given. The barter system works fairly well but the patients and attending physician in many instances have to be urged to replace the blood used. We have partially solved the difficulty by making a substantial charge if after a reasonable period of time blood has not been replaced to the bank. A nominal fee should be charged for each unit of plasma used.

4. All physicians should be kept up to date on the latest developments in the treatment of conditions requiring the use of plasma. The hospital staff should be made aware of the use, abuses, indications and contra-indications for plasma. Our records indicated that all of us needed to be refreshed on these points. This may be done by frequent, short talks at staff meetings describing the progress of the bank. Since shock is the chief indication for the use of plasma, it is imperative that all physicians treating it be thoroughly conversant with the pathogenesis of the shock syndrome. We know that the patient admitted to the hospital today in shock will receive better and more adquate treatment than he did a year ago at the start of our project.

Because of these problems it was felt that a simple, inexpensive, relatively fool proof apparatus be used to prepare dilute plasma. The Baxter Laboratories had available commercially a transuso-vac and plasma vac set. These consisted of a donor and recipient set, available at a low cost. It provided a minimum of apparatus for the drawing of blood and preparation of dilute plasma by the sedimentation method. They also had available commercially the Alsever solution in vacuum flasks which in our hands has provided a satisfactory solution for the preparation of plasma.

PLAN OF OPERATION

The following is our plan of operation: Healthy, afebrile, adult, preferably fasting, donors between the ages of 21 and 60, are bled an average amount of 500 cc. into a vacuum flask containing 500 cc. of diluent and anticoagulant, the Alsever solution. A small sample is removed from the tubing for typing and Kahn & Kline tests. The flask is placed in a constant temperature refrigerator at 4°c. where sedimentation is allowed to proceed for an average of 14 days. The supernatant plasma is removed by suction into a 500 cc. vacuum flask and then replaced in the refrigerator. The plasma is clear and has a minimum of hemolysis. At the time of removal of plasma both anaerobic and aerobic cultures are taken. If a positive culture is reported the flask is discarded. Bloods which show a positive Kahn & Kline are immediately discarded. A few protein determinations have been made but this is not necessary. Plasma must be filtered because of the danger of embolism. This is most conveniently done at the time of administration of the plasma by using a wire mesh filter. The barter system is our method of replacing plasma.

The advantages of the foregoing plan of operation are many. It is simple and effective. Very little time is required to prepare the plasma. It provides a closed system which minimizes the danger of contamination. The resulting plasma is exposed to contamination only twice before administration. 1. At the time of drawing of blood and, 2, at the time of separation of plasma. No expensive, elaborate equipment is necessary, other than a constant temperature refrigerator which is essential. Ordinary refrigerators are not adaptable. The disadvantages of this system are in general the disadvantages of using liquid plasma. 1. Some flocculation of unstable proteins. This has not been troublesome to us because the filtering process removed any precipitate. 2. Bacterial contamination. This has been insignificant. We have had an incidence of less than one per cent contamination and although these flasks were recultured several times, no growth was obtained. 3. There is a continuous progressive loss of some of the essential elements with aging, particularly prothrombin. This is a valid disadvantage in a limited number of cases but does not hold in the treatment of shock because most of the protein molecules in dilute plasma deteriorate very little.

INDICATIONS

Indication for the use of plasma are many. The most urgent indication is shock, whether it be due to trauma, burns or hemorrhage. Although there is considerable dispute about much of the shock syndrome, enough has been learned in recent years to make it possible to treat most patients more intelligently.

Primary shock develops frequently after a severe injury. This is a state of vasomotor collapse in which the vascular bed dilates to such an extent that the volume of blood becomes insufficient to maintain adequate circulation. It may be difficult to distinguish this form of collapse from true secondary shock, so that all patients who present a lowered blood pressure and feeble pulse should be treated immediately for collapse. This involves general methods of heat, adequate sedation, elevation of the lower extremities and the intravenous administration of glucose or saline solution. In primary shock there is no indication for the use of blood plasma. If the patient does not respond to such measures true secondary shock may be present.

In contrast to the above, in secondary shock, inadequate circulation develops because of loss of blood or some of its components and not because of vasodilation (vasoconstriction usually occurs.) Symptoms of shock develop after hemorrhage because of sudden reduction of blood volume, not because of lowered hemoglobin. After a severe injury or burn reduction of blood volume occurs as the result of loss of plasma into the injured area. This in turn brings about concentration of the elements of the blood not lost. Although the mechanism of shock may differ in hemorrhage, trauma and burn, the object of treatment in secondary shock is to rebuild the blood volume as quickly as possible. Following hemorrhage the transfusion of whole blood is the procedure of choice, but if shock is progressing plasma may be given in amount of 500 to 1000 cc. to tide the patient over until a transfusion of whole blood can be given. Following severe trauma or burns in which the blood volume is reduced by loss of plasma the method of choice is a plasma transfusion in the customary quantity of 500 to 1000 cc. Further administration of plasma will depend not only on the clinical response but on the results of a few very simple laboratory procedures.

Scudder and his associates emphasize the value of following patients in shock with hematocrit, hemoglobin and plasma specific gravity determinations because they give valuable information before blood pressure changes occur. A rise in percentage of packed red cells in the centrifuged specimen of blood or an increase in the hemoglobin percentage is an indication of the need for more plasma. Specific gravity determination may be done if equipment is available, but one of the first two, hematocrit or hemoglobin estimation is more easily done. If, following the administration of plasma there is evidence of marked lowering, below normal of the hemoglobin or hematocrit, whole blood should be given in place of plasma because further administration of plasma will only cause more hemodilution and therefore be harmful to the patient. Although blood pressure changes do occur later, its estimation should always be made not only once but repeatedly. One cannot emphasize too much that the patient in shock should be closely followed. It is just as important to make hemoglobin, hematocrit and blood pressure determination in the shocked patient as it is to do repeated estimation of the blood or urine sugar in a patient in diabetic coma.

Many workers have emphasized the value of plasma or serum transfusions in other fields. One of the major advances in therapeutics in the past few years has been the recognition of the importance of diminishing plasma protein in surgical patients. Ravdin has emphasized its value in the maintenance of plasma protein in patients with hypoproteinemia. Fine and Gendel have demonstrated the tremendous amounts of protein which may be lost in the dilated bowel of the patient with intestinal obstruction or paralytic ileus. Aldrich has used concentrated serum as a diuretic in patients with nephrosis. Mahoney suggests the use of fresh plasma in hemophiliacs. The administration of fresh plasma in hemorrhagic disease of the new born, will frequently tide the patient over the latent period of Vitamin-K activity. Plasma may be used in the preoperative preparation of the patient with obstructive jaundice.

ADVANTAGES OF PLASMA

The greatest single advantage is the immediate availability of an effective substitute for whole blood. There is no problem of obtaining donors. Syphilis and other communicable diseases have been ruled out by previous laboratory tests. Typing has been found to be unnecessary before the transfusion of plasma. Minutes and even hours are saved by having available such an effective substitute for blood. Once the indication for its uses have been established, the transfusion should and can be started on the patient within five minutes.

Another advantage is that blood plasma may be safely stored in the refrigerator for many months before use. Our longest period of storage before use was six months. It may be kept even longer.

Still another advantage is that a plasma transfusion is an extremely simple and safe procedure. No more apparatus is required than for an ordinary infusion of glucose or saline. Although plasma should always be filtered before administration, the filter can easily be incorporated in the tubing used for the transfusion.

The infrequency of reactions and their evanescent character make it an extremely safe procedure. Reactions following a plasma transfusion are the same as those following the administration of whole blood. There may be chill, fever, urticaria, nausea, vomiting and respiratory distress. One should proceed more cautiously in administering plasma to a patient with fever or with low serum protein because the incidence of reaction in these two groups is higher.

SITES OF TRANSFUSION

In the average normal adult the selection of the vein for transfusion depends to a great extent on the age and build of the patient. The veins most easily accessible are the median basilic and cephalic in the ante cubital space. Not infrequently these veins are unusuable because of obesity, burns involving this area, size of lumen, thrombosis due to frequent intravenous injections, or collapse due to shock. Many other sites for transfusions are frequently overlooked. In children the internal saphenous and external jugular are often used. In adults one of the radial, dorsal metacarpal, femoral, superficial temporal or internal saphemous veins is usually accessible. Strain suggests the corpus cavernosum as a site for transfusion when other channels are not available.

PLASMA BANK VERSUS BLOOD BANK

It seems a wasteful procedure to discard red cells after plasma has been removed. We have done this with few exceptions during the eleven months of operation of the bank because the great need in an industrial center is for a ready available blood substitute to be administered to patients in traumatic shock. If a transfusion of whole blood is needed, plasma may be administered until donors are found and checked for type and serological reaction. If the hospital averages three to five transfusions per day, a blood bank will be successful. If there are less than this number of transfusions the waste of cells will be excessive even though plasma is recovered as a by-product. Perhaps the greatest objection to establishing a blood bank is the increased time required to check types and the many other necessary procedures incident to it. The advantages of a blood bank are first—the immediate availability of all types, and second, the centralization of such a procedure will result in a better technique and less reactions. We have not discovered the need as yet for the establishment of a blood bank in our hospital.

RESULTS

During the past eleven months, 125 transfusions of dilute plasma were administered to 90 patients, as shown in Table I. All plasma was filtered at the time of administration. Two patients received intramedullary transfusions in the tibia, the remainder were given intravenously. There were two reactions. One patient developed a chill with mild fever for a few hours. The other reaction was one of respiratory distress, also of very short duration. There were no fatalities from the use of plasma. The maximum amount injected was 4000 cc. to a patient with a severe burn, the least was 50 cc. in a six week old infant. Plasma was adminstered by means of an 18 to 20 gauge needle in an average time of one hour for 500 cc. Table II shows the conditions for which plasma was given. No attempt will be made to present in detail all the cases but typical case reports will be given.

TABLE I

SUMMARY OF TRANSFUSIONS

Total number of patients	90
Total number of transfusions	125
Total volume of dilute plasma used	62,000cc
Average volume of transfusions	680cc
Maximum transfusions to one patient	8
Total number of reactions	2
Average age of patient	37
Average duration of transfusion	60 min.
Total number of patients who recovered following transfusion	71
Total number of patients who did not recover following transfusion	19

TABLE II

SUMMARY OF PATIENTS

Traumatic and operative shock	42
Hemorrhage	25
Burns	10
Hepatic disease	3
Supportive measure	4
Hypoproteinemia	5
Exfiolative dermatitis	1

CASE REPORTS

Case 1. E. S., a 28 year old male, was stabbed in the heart by an assailant and admitted to the hospital in fair condition. At operation on opening the pericardium he went into profound shock. He received a total of 1500 cc. of dilute plasma, followed by a transfusion of 700 cc. of whole blood with reactions. Three hours after the operation the blood pressure was 104/72. Serial electrocardiograms indicated coronary damage. He made an uneventful recovery.

Case 2. F. O., a 57 year old male, fell three flights from a scaffolding to a cement sidewalk. He had a severe compound fracture of the left femur with a fracture of three ribs. The blood pressure on admission was 90/60. During debridement the blood pressure dropped to 60/0. He was given 1500 cc. of dilute plasma within a period of two hours. Following operation the blood pressure was 100/65. The patient expired on his fourth postoperative day of a pulmonary complication caused by the fall.

Case 3. Mrs. J. M., a 33 year old female, was admitted in moderately severe traumatic shock. Blood pressure on admission was 96/64. Three hours after the administration of 500 cc. of five per cent glucose the blood pressure was 68/?. Five hundred cc. of dilute plasma was given and the blood pressure in two hours was 100/70. She maintained this pressure and made an uneventful recovery.

Case 4. A 28 year old male was severely burned when his clothes ignited in a gasoline fire. Sixty per cent of his body was burned, 30 per cent a deep three degree burn. He was given a total of 4000 cc. of dilute plasma within a period of 48 hours. The hematocrit at one time was 74 per cent. Following the administration of plasma this was reduced to 52 per cent. The severe secondary shock was combated successfully and he lived for a total of three weeks. Cause of death was infection.

COMMENT

Although there are many problems incident to the establishment of a plasma bank in a nonteaching institution we have found them far from insurmountable. At the start of the project, the physician in charge must, of necessity, spend several hours a day attending to the many details of operation. As time passes the bank should become a smoothly functioning unit which will require no more than an hour a day of the doctor's time. This much expenditure of effort is certainly not prohibitive. As a matter of fact we are convinced that a plasma bank is an essential part of a modern hospital, regardless of size. The volume of plasma given is important. Most of the reports from England show that large amounts of plasma should be used, especially in treatment of burns when a tremendous amount of blood plasma is lost from the circulation. The clinical response and the result of one or two simple laboratory procedures will serve as the guide as to the volume of plasma to be used.

The speed of adminstration will usually depend on the indication. In severe shock dilute plasma may be administered as fast as it will run through an 18 to 20 gauge needle. Several of our severely injured patients received 500 cc. of plasma within 15 minutes without reaction. If concentrated plasma is used the speed must be reduced because of the damage of a resulting critical rise in venous pressure. In the elderly patient or in one who is known to have a poorly functioning cardiovascular system before injury, one must proceed more cautiously.

Seventy-one patients recovered out of a group of ninety who received plasma transfusions. Many in the group of 19, in which transfusion was unsuccessful, were in extremis as a result of shock or serious illness. There was no death attributable to a transfusion reaction. We feel that although plasma is not a panacea it is a valuable therapeutic aid.

CONCLUSIONS

1. Some problems in the development of a plasma bank have been outlined.

2. A simple plan of operation is outlined for use in a large or small hospital.

3. The results of 125 transfusions to 90 patients has been briefly outlined.

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Arterial Hypertension

To this date there has been no brilliant and revealing light shed upon the obscurities surrounding the problem of high blood pressure. We welcomed with great interest the arrival of the first clinical sphygmomanometer. Greatly as this instrument has added to our exact knowledge and widened our interest in circulatory diseases and indispensable as it has become, it has often occurred to me, looking at the matter from a different angle, that it might have been better for mankind in general if this instrument had never been adapted for clinical use and become so universally employed, but had remained as it originally was—an item of laboratory technology. By dealing in precise figures to gauge a phenomenon we understand so imperfectly, we establish false values to confuse our own judgment and often hopelessly shatter the patient's peace of mind.

It is stated that 50 to 75 per cent of all deaths from C.V.R. disease, estimated to be 500,000 yearly, are due to essential hypertension. The generally accepted belief is that it is in the first instance a functional perversion—a generalized vascular hypertonus, progressively elevating peripheral resistance in the precapillary bed under some morbid stimulation. The biochemistry of the body has been raked to identify some organic derivative that might act in this manner, the products of chronic infection have been examined, man's psychic experiences and social misfits and his environmental experiences all have been subjected to minute consideration and analysis, but to little avail.—Arthur R. Elliott, M.D., Chicago; Jour. M.S.M.S., Vol. 41, No. 6, June, 1942.

An Unusual Complication of Gall Bladder Disease

W. A. NEILL, M.D. AND ERNST STERNFELD, M.D.

DISEASES of the gall bladder and the bile ducts are of wide interest due to the frequency of their occurrence. With the present high standing of diagnosis and the opportunity of adequate medical and surgical treatment even in the smaller communities, sequela of gall bladder disease requiring numbers of years for their formation are seen less frequently, because the underlying condition is diagnosed and interfered with at a rather early moment. Even though complications are well enumerated and tabulated in text books of pathology or monographs on gall bladder disease, I believe that it is worth while to present a rather unusual case which was encountered in our material.

CASE REPORT

Mrs. E. S., 57 years of age, was admitted to the hospital with the chief complaint of severe pains in the right upper abdomen and gas complaints. Her family history is negative for tuberculosis, cardiac, mental or endocrine disorders. It is interesting to note that her father and seven uncles died of cancer of the stomach. Her past history is non-contributory except for the last two years when her local doctor referred her to us on several occasions for incision and drainage of carbuncles. After recurrence of the carbuncles, a thorough study of her blood was done, but no evidence of blood dyscrasia found. Cultures from the carbuncles failed to exhibit any organisms. Her menstrual history was essentially normal. She has one daughter and is now 13 years after menopause.

Her present condition began about five years ago, when she developed gas trouble and frequent spells of indigestion. There was neither nausea nor vomiting with her spells. Her bowels moved normally with only occasional use of laxative. There was no jaundice during her present illness. However, she had been jaundiced some 15 years ago following several severe attacks of pains in her upper right abdomen. At that time she was told to have gall stones but no therapeutic consequences were taken from this diagnosis and since she had no further trouble from this condition, nothing was done about it.

During her present illness, indigestive and gas complaints culminated into a regular attack of severe epigastric pains about every two months, and one to two hypodermics were required for relief of the attack. The patient had an X-ray examination in 1938, which showed a nonfunctioning gall bladder without visualization of stones. Dietary management was successfully carried out, relieving the patient of her pains. She lost 60 pounds while on the diet. The patient felt fine and began to neglect her diet with the consequence that she developed again spells of the same character two to three times a month. Just two weeks before admission she had a very severe spell of pains which could not be relieved by hypodermics administered by her local doctor. The patient was unable to retain any food. In the hope that the spell would subside she was kept on opiates for more than a week but was finally transferred to the hospital for operation.

Her white count was 17,700. The differential count showed a moderated left shift. Urine was essentially negative. Temperature was 100°. Pulse was 102. Respirations were 16. The physical examination revealed a white, well developed, rather poorly nourished, somewhat anemic patient not acutely ill, but suffering from abdominal pains. No jaundice, cyanosis or dyspnea. Examination was essentially negative except for the findings of the abdomen, which revealed an enlarged, very tender liver, reaching about three fingers below the costal margin. The spleen and kidney were negative to palpation and percussion; there was severe tenderness in the right upper abdomen, but no masses could be palpated.

Before being operated, the patient was given intravenous infusion of saline and 10 per cent glucose. Pre-operative diagnosis of cholecystitis and cholelithiasis was made. A very unusual picture was found on opening of the abdomen. Exploration revealed that a gall stone had eroded the gall bladder in its fundus and penetrated into the pyloric region of the stomach sometime in the past resulting in spontaneous cholecystogastrostomy. Adhesions and continuation of the cholecystitic process had distorted and obliterated the ampullar end of the gall bladder, so that the fundus presented itself like a diverticulum of the stomach. With great difficulties adhesions about the gall bladder were broken loose. The common duct was exposed, opened and probed. It contained numerous small stones and gravel and remnants of a sloughed off mucus membrane. It was cleaned out by lavaging it with normal saline in both directions and a "T" tube was inserted into it. Since the patency of the choledochus was established, a cholecystectomy was done after the fundus was doubly clamped on its anastamosis to the stomach and severed between clamps. Opening in the stomach was oversewn in two layers and covered by omentum.

Post-operatively patient developed septic type of temperature up to 103.6° for which no explanation was found. The abdomen remained soft with continuous suction, enemas and prophylactic use of prostigmin. On the fifth postoperative day the patient developed evidence of

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Submitted April 14, 1942.

parotitis and three days later an abscess in this gland was incised following which procedure the patient become afebrile. Her condition remained good and she was discharged on the twenty-third postoperative day. She has been fine since then and had no complaints when reporting for a check-up just recently.

DISCUSSION

Reviewing the literature for the last 15 years, very little could be found about a similar case. Segal and Martin of Rochester, New York, reported a case of perforation of a gall stone into the stomach with pyloric obstruction requiring emergency operation. Mitchell reports about hidden perforations of the gall bladder and R. L. Saunders reviews perforation of the gall bladder from a more general standpoint, but no similiar case report was found in the material available to us.

Our case seems to be of interest from three points of view. The first point which cannot be solved definitely is speculation as to the probable time of perforation and the relationship of this event to her symptoms. This might have been some 15 years ago when the patient apparently had an obstructive jaundice due to stone disease or might have started about five years ago when perforation might have occurred during one of her first spells. I am rather inclined to think that the disease was not much older than five years on account of the uneventful story from the time of her first stone attack 15 years ago and the onset of her present condition. It would be of great interest to know whether her symptoms are mainly due to distortion of the pylorus and the prepyloric diverticulum, or due to chronic cholecystitis and cholangitis. Since it appears improbable that all her bile went through the common duct, some of the symptoms could be attributed to premature alkalinization of her gastric contents or a combination of all factors mentioned just now.

The second point in consideration is evaluation of the adequate surgical procedure. It was questionable at the time of the operation, whether the common duct, filled with stones, gravel and sloughed off membrane, was functioning or whether the bile took its way through the cystic duct, gall bladder, cholecystogastrostomy, pylorus, duodenum. If this would have been the case separation of this established way would have been very poor surgery. For this reason probing and cleansing of the common duct was attempted before the union between gall bladder and stomach was severed disregarding the great difficulties of such procedure.

The third point of interest concerns the possible connections between the numerous carbuncles and the postoperative metastatic parotid gland abscess and the cholecystitis and cholangitis. The gall bladder and bile ducts are known to be the site of chronic infectious processes which reflect on the system. Since the patient did not have any carbuncles or abscesses of any kind, since discharge from the hospital, one could conclude that in this particular case a direct connection between furunculosis and gall bladder disease should be established.

The rarity of this case and the problems discussed in this presentation influences us to put this case on record.

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Bleeding in Threatened Abortion

There is one point that we would like to make concerning threatened abortion in general, and that is the amazing amount of bleeding which may sometimes occur, and the prolonged bleeding which may sometimes be encountered, without actual interruption of the pregnancy, and without impairment of the embryonic life. We cannot agree that bleeding *per se*, even a considerable amount of it—over a long period of time, is always an indication for interruption of the pregnancy, or that one can assume on the basis of it that abortion is inevitable. On this point we feel very strongly, for there are several patients in this series in whom bleeding occurred intermittently throughout pregnancy, and at times to quite an extensive degree, and yet the patients were delivered at term of quite lovely normal babies.

The criteria upon which we base our indications for interference are the changes in contour of the uterus and cervix. By changes in contour we refer to the ballooning out of the cervix, effacement, with or without some dilatation of the external os. This phenomenon, along with excessive bleeding, indicates that the anchorage of the chorionic villi have been disrupted and the products of conception are now lying detached and loose in the lower uterine segment. In such cases, prompt evacuation, or steps toward the evacuation of the uterus are definitely indicated. Where bleeding is intermittent and repeated, the change from a positive Friedman to successively negative Friedman test is indication that the embryo has died and that the products of conception are being harbored unduly long in the cavity of the uterus.—Thaddeus L. Montgomery, M.D. and Harry L. Stewart, Jr., M.D., Philadelphia; Jour. M.S. of New Jersey; Vol. 39, No. 6, June, 1942.

Treatment of Industrial Dermatoses

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INDUSTRIAL dermatoses are diseases of the skin caused by exposure incident to industry. These exposures consist mainly of direct contact with various chemicals, woods, plants, metals, petroleum products, and certain pathogenic organisms. Excessive perspiration, extreme heat or cold, and contact with abrasives may be contributory factors in the causation of an industrial dermatosis. Before an eruption can be considered to be of industrial origin, it is necessary to show that its major causal, contributory, or eliciting factor is incident to the patient's industrial occupation.[1]

Different types of cutaneous lesions may be produced by industrial exposures. These include keratoses, malignant growths, burns, abrasions, folliculitis, infections (anthrax, glanders, etc.), ulcers, vitiligo-like changes, hyperpigmentation, and acute and chronic dermatitis of the eczematous contact type. Since industrial workers, like other individuals, may develop these various dermatoses from contacts not related to their occupation, every effort should be made to determine the industrial or non-industrial origin before reporting it as an occupational disease.

It is a matter of common observation that dissimilar irritants provoke identical cutaneous reactions. For example, the characteristics of an eczematous dermatitis caused by cutting oils do not differ from those of a dermatitis caused by synthetic resins. Consequently, the causal agent cannot be determined by a consideration of the characteristics of the eruption. It is equally important to differentiate an industrial dermatosis from other common cutaneous diseases such as lichen planus, psoriasis, seborrheic dermatitis, herpes zoster, and non-industrial eczematous contact dermatitis which are in no way related to the patient's industrial exposures. These precautions are obvious, but too often they are not observed by the physician.

The incidence of industrial dermatoses is high, and the resulting economic loss is great. Eller and Schwartz[2] state that, excluding actual accidents, industrial dermatoses constitute 60 per cent of industrial disease. They also point out that at least one per cent of industrial workers suffer from an occupational dermatitis some time during each year. Many other observers agree with these figures. The high incidence of industrial dermatoses is due chiefly to the fact that allergic contact dermatitis constitutes a very large percentage of cutaneous diseases of industrial origin because industrial workers are exposed to numerous chemicals having strong allergenic properties. The rapid progress which has been made during the past decade in the study of the role of allergy in the production of cutaneous disease has revived and stimulated the interest of the allergist, dermatologist, and industrial physician in industrial dermatoses. Of special value among contributions pertaining to the various phases of occupational and industrial dermatoses is a symposium on occupational diseases which was published in The Journal of the American Medical Association for October 22, 1938.[3]

In a brief summary of the treatment of industrial dermatoses, the discussion should not be limited to the indications and contraindications for the use of certain topical remedies. If the physician so limits his efforts in the treatment of a patient with an industrial dermatosis, he will meet with many failures. The prevention of industrial dermatoses is an important phase of the subject. Indications for preventive measures vary with each industry. The object of any preventive measure is to decrease to a minimum the number and length of harmful exposures. Aside from the precautions exercised by the management of an industrial plant, the worker should be required to maintain excellent body hygiene and to report promptly the first indication of the development of a cutaneous disease. Contact with chemicals possessing strong allergenic properties should be decreased to a minimum.

The treatment or management of industrial dermatitis is divided into two parts: (1) The detection of the causal factors and the prevention of future contacts with them; and (2) symptomatic treatment for the relief of subjective symptoms and the cure of the eruption. A third highly desirable, but as yet ineffective procedure, consists of desensitization of a worker who has developed a contact allergy incident to his employment.

Industrial contact dermatitis is by far the most common industrial dermatosis. The clinical characteristics and the mechanism of production do not differ from contact dermatitis of non-industrial origin. Consequently, the methods of investigation and the therapeutic indications are identical with those for contact dermatitis in general.

Contact dermatitis may be nonallergic or allergic in type. Nonallergic dermatitis is caused by common irritants or substances which, when applied to the skin in certain concentrations for

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Dr. Netherton was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

a sufficient length of time, produce a dermatitis in all individuals. These agents include strong acids, alkalies, soaps and solvents. The treatment of this type of dermatitis consists of prompt removal of the irritant by immersing the affected parts in water or under a faucet of running water, and the application of neutralizing solution. Later a bland topical remedy should be applied. During the early acute erythematous and vesicular stages a lotion such as calamine lotion should be mopped on frequently during the day. In the less severe or subacute cases calamine liniment is beneficial:

Rx	Gm. vel cc.
Pulv. Trag.	1.0
Zinc. Carb. Praec.	10.0
Zinc. Oxid.	10.0
Ol. Oliv.	60.0
Liq. Calc. Hydrox. q.s. ad	120.0
Ft. lot.	

Phenol 1 per cent; menthol ¼ per cent or liq. carbonis detergens 5 per cent should be added for the relief of pruritus. Tight dressings should not be applied. Large vesicles should be punctured with a sterile instrument. When desquamation begins, a bland ointment such as 5 to 10 per cent powdered boric acid in white petrolatum may be substituted for the drying lotion. Antiseptic drugs should not be used unless a secondary pyoderma develops.

In industrial allergic dermatitis the irritant or substance which produces the dermatitis is innocuous to the nonallergic employee. The mechanism of the production of contact allergy is unknown. The epidermis is the shock tissue, and the acquired allergy, in which heredity is not a factor, develops only after one or more contacts, and often repeated contacts with the allergen. The epidermis on all areas of the body becomes hypersensitive to the allergen.

The allergenic properties of chemicals vary greatly, as does the tendency to acquire a contact type of allergy. The incidence of contact dermatitis from a specific irritant depends upon the number of persons exposed, the allergenic properties of the allergen, and the conditions under which the contacts are made, i.e., the frequency of, and interval between exposures, the concentration of the irritant, and the length of exposure. As previously indicated, friction, heat, trauma, and excessive perspiration may be contributing factors. Some observers believe that focal or systemic infections or an epidermophytosis accompanied by an epidermophytid may increase an individual's susceptibility to contact allergy.

The management and solution of a case of industrial dermatitis of the allergic type is often very complex and difficult. Treatment of the eruption is fairly simple, but this alone is not sufficient. Although the eruption disappears when the patient discontinues work, it recurs when he resumes work. If the nature of the dermatosis is not recognized, the patient may develop a chronic recalcitrant dermatitis.

Two invaluable procedures are necessary for the investigation of a case of allergic industrial dermatitis. The most important is an accurate and detailed history, which should include detailed information regarding industrial and nonindustrial exposures, length of present employment, number of fellow employees, and the incidence of dermatitis among them. It is important to know whether the site of the greatest intensity of the eruption corresponds with the maximum contact with the industrial irritant which is under suspicion.

From the history and knowledge of the nature of the patient's employment, clues are obtained for further investigation by patch testing. The patch test is a valuable method for studying an individual for evidence of contact allergy. It is easily applied, and with experience the result of the test can be read without difficulty. It is imperative, however, that certain precautions be observed in the technic and interpretation of the test.

Hypersensitivity to common or primary irritants is determined by testing with concentrations less than those which are known to produce a dermatitis in a normal or nonallergic individual. Obviously, solid soaps, volatile substances, and strong acid or alkaline solutions should not be applied as patch tests. It is probable that soaps always act as common irritants when they produce a dermatitis. They should be tested in one per cent aqueous solution. If the concentration of a substance which is proper for patch testing is unknown, very weak solutions should be used and control tests applied to normal individuals. By gradually increasing the concentration of the substance and by observing the difference in the reaction in the normal individual and the patient, it is possible to determine whether the patient has a contact allergy to the test substance. Patch tests should not be applied if the patient has an extensive dermatitis. This method is not entirely without risk, and when used injudiciously may make the dermatitis worse.

If the technic of the patch test has been correct, a positive reaction indicates that the patient has an eczematous hypersensitiveness to the substance tested but does not necessarily prove that the substance is the cause of the patient's eruption. The results of the test must be correlated with the history. The positive reaction must be of an eczematous type, and it must be shown that the patient comes in contact with the specific allergen.

A negative reaction does not prove that the irritant is not the causal factor. Friction, heat, excessive perspiration photosensitization, and possibly other factors existing in the industrial plant which cannot be duplicated in the technic of the patch test may influence the result.

If the etiology of an industrial dermatitis can be discovered and further contact with the irritant prevented, the dermatitis will disappear under comparatively simple management. If the dermatitis is mild, the patient may apply a bland protective cream or ointment and continue with his duties. In some cases the individual will lose the hypersensitivity and be able to continue his employment. In most cases, however, a permanent change in employment is necessary.

The chief therapeutic measures are directed toward preventing further injury to the skin. Itching is usually intense, and the trauma caused by scratching makes the dermatitis worse and is apt to produce or spread a secondary impetiginous infection. The injudicious use of soap and water, friction of rough, tightly fitting, garments, and the use of irritating remedies are secondary irritants which often make the dermatitis worse and prolong convalescence.

The successful treatment of contact dermatitis depends upon the proper use of a few simple remedies in preference to complex preparations which have been advertized to the profession as possessing special merit because of some special ingredient or ointment base. Anesthetic drugs, mercury, picric acid, resorcinol, and the like possess strong allergenic properties and should not be used in uncomplicated contact dermatitis. Sometimes the patient is already hypersensitive to these and to other commonly used remedies.

The first indication is to relieve itching and acute inflammation. The more active the dermatitis, the more bland should be the remedy. Surface evaporation should be increased by the application of wet dressings and evaporating lotions. Ointments prevent evaporation from the surface of the congested skin and consequently augment the subjective symptoms.

In the presence of edema and vesiculation, wet dressings should be used and should be kept moist. Continuous occlusive wet dressings should not be applied for more than 24 hours. Best results are obtained by wet packs as they require the patient to remain at rest, and maceration of the epidermis is not so apt to occur. Saturated solution of boric acid, slightly hypertonic saline solution, or aluminum acetate (1 dram to a pint of water) are the most valuable remedies for moist packs. Potassium permanganate solution 1:5,000 or silver nitrate ¼ per cent solution should be used when there is a secondary impetigenous infection. After the acute inflammatory reaction has subsided, treatment should be changed to evaporating and protective lotions. Calamine lotion with 1 per cent phenol and ¼ per cent menthol is one of the best and is universally used. At times the addition of 1 to 2 per cent of ichthyol (ammonium ichthyol-sulfonate) is beneficial.

If the dermatitis is subacute, bland ointments are indicated. For this purpose 5 to 10 per cent of boric acid and 1 per cent phenol in white petrolatum can seldom be excelled. Some patients are hypersensitive to lanolin, consequently, it should not be added to the base of boric ointment. It is seldom necessary or advisable to add other ingredients.

Patients with an acute or subacute disseminated dermatitis should be hospitalized. Absolute bed rest is a great value, shortens the duration of the dermatitis, and helps to prevent the development of generalized erythroderma. Starch or weak potassium permanganate baths are soothing and satisfactory for cleansing purposes. Irritating cleansing procedures should be avoided.

Chronic contact industrial dermatitis does not respond so quickly and satisfactorily to mild topical remedies. The skin is dry, thickened, slightly scaly, and the pruritus is annoying, therefore, stimulating antipruritic remedies are indicated. Tar preparations, which should never be used in acute dermatitis, are especially valuable in chronic lichenified dermatitis. The physician should become familiar with the use of one or two kinds of tar and avoid the use of others. Ung. picis pini and crude coal tar are less irritating than other commonly used tars.

The following ointment is seldom irritating and is an excellent antipruritic.

Rx	Gm. vel. cc.
Ung. Pic. Pin.	4.0
Zinc. Oxid.	4.0
Ung. Plumb. Oleat.	4.0
Petrolat. q.s. ad	30.0
M. ft. ung.	

Crude coal tar 5 to 10 per cent in zinc oxide ointment is also an excellent preparation. These preparations adhere to the skin and should be carefully removed once a day with olive oil or liquid petrolatum.

Roentgen ray therapy is of great value in the treatment of subacute and chronic contact dermatitis. Weekly fractional doses of 75 r (¼ erythema skin unit) will frequently produce a cure in recalcitrant chronic contact dermatitis. It should be emphasized that roentgen ray therapy must be used judiciously. A physician who assumes the responsibility for the use of such a potentially dangerous remedy in the treatment of cutaneous diseases should be capable of making a dermatologic diagnosis and should be well-trained in the technic of superficial roentgen ray therapy. It is not uncommon for dermatologists to see disastrous sequelae of the injudicious use of x-ray.

When itching is severe, it may be necessary to administer sedatives in order to decrease the trauma from scratching and to enable the patient to rest during the night. Sodium bromide, chloral hydrate, and phenobarbital mixtures should be used in preference to narcotics. The administration of calcium is seldom of value.

Of the common cutaneous diseases which are frequently associated with an industrial dermatitis, special mention should be made of epidermophytosis. It is a common error for physicians to assume that most vesiculo-squamous eruptions of the hands and feet are ringworm infections. This is far from true. A clinical diagnosis of epidermophytosis must be confirmed by demonstrating mycelia in the epidermis. The differential diagnosis and treatment of recurring vesicular eruptions of the hands and feet is one of the most difficult problems which confront the dermatologist. It is not always easy to determine the relative importance of an associated epidermophyton infection in a case of industrial dermatitis. Treatment which is appropriate for an epidermophyton infection will aggravate a contact dermatitis or an epideromphytid.

The treatment of keratoses, epitheliomas, and simple ulcers of industrial origin does not differ from that used in similar lesions of non-industrial origin. The keratoses and epitheliomas may be destroyed by irradiation therapy or by electrodesiccation. Ulcers should be treated by rest, cauterization, or curettement of their unhealthy base and the application of a bland dressing such cod liver oil ointment.

The acneform eruption caused by the plugging of the orifices of the pilosebaceous follicles by paraffin and lubricating compounds is one of the most recalcitrant of the common industrial dermatoses. The lesions are most numerous on the arms and legs and are caused by the mechanical blocking of the follicles. The suppuration is caused by the normal flora of the skin and is precipitated by the foreign body reaction caused by the comedones. Cleanliness is the most important measure in the prevention of oil acne. After the disease has developed, the employee must be removed from all contacts with oils and lubricating products. The involved areas should be cleansed frequently and thoroughly with soap and water and each pustule and furuncle incised. Potassium permanganate baths and the application of antiseptic lotions or ointments is indicated. Toxoids and vaccines are of doubtful value. If there is a secondary anemia, iron should be administered and other measures directed toward increasing the patient's own defense mechanism. In extensive and especially resistant cases nonspecific foreign protein shock produced by the intravenous injection of typhoid vaccine is of value. This procedure requires hospitalization and should be used only in selected cases. Oil acne does not respond well to roentgen therapy.

SUMMARY

Excluding injuries from accidents, industrial dermatoses constitute approximately 60 per cent of the industrial diseases.

Industrial dermatitis of the contact type is by far the most common industrial dermatosis and does not differ fundamentally from contact dermatitis of non-industrial origin.

A contact dermatitis occurring in an industrial worker is not necessarily of industrial origin. It is imperative that a thorough investigation be made in each case before reporting it as one of industrial origin.

In the treatment of industrial dermatitis use simple topical remedies. In acute erythematous vesicular dermatitis soothing, evaporating lotions and wet dressings are preferable to ointments. Subacute and chronic dermatitis respond best to roentgen ray therapy and bland or mildly stimulating ointments. **Avoid** use of anesthetic drugs, ammoniated mercury, and butesin picrate as these drugs possess strong allergenic properties.

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Endemic Tularemia in Southern Michigan

A localized outbreak of ten cases of tularemia in Michigan is described, each of these cases being of the ulceroglandular variety. A patient presenting indolent, furuncle-like lesions, usually about the hands, with indefinite systemic symptoms suggestive of an acute infection, and painful, tender, regional adenopathy should make the physician suspicious of tularemia, especially if there is a history of handling wild rabbits. Laboratory aids in the diagnosis of this disease are the agglutination test and animal inoculation, the latter being the more reliable of the two. As to treatment, surgical intervention for the purpose of incision and drainage is contraindicated unless suppurating adenopathies are encountered. Of the sulfonamides, sulfathiozole gave the best therapeutic results in this series. Symptomatic treatment is an important adjunct in the therapy of all cases of tularemia.—Edward Philip Cawley, M.D., Jour. M.S.M.S., Vol. 41, No. 6, June, 1942.

Electro-Shock Therapy

Third Annual Reportorial Review

JOSEPH L. FETTERMAN, M.A., M.D., Cleveland, Ohio

A SERIES of papers under the heading of "Electric Shock Therapy", was presented at the Ninety-Eighth Annual Meeting of the American Psychiatric Association held in Boston, May 18 to 21, 1942. The papers ranged from preliminary reports by some writers to extensive follow-up studies by others. A few essayists were skeptical, some conservative, but the majority were enthusiastic. In this review, an attempt will be made to mention certain high points and to appraise the value of this mode of therapy. Details of the technique have been mentioned in last year's review and may be found in several references. (1, 2, 3.)

C. A. Neymann, V. G. Urse, and J. Madden of Chicago reported unusually good results both in depressions and in schizophrenia. Their figures indicated that practically 100 per cent of depressions and 59 per cent of schizophrenics were improved. This extraordinarily high rate of improvement is attributed to the technique of daily treatments until deep amnesia is reached. The figures presented by L. B. Kalinowsky and H. J. Worthington also represented a high percentage of remissions among 150 schizophrenics given electro-shock treatment. These authors explained the favorable results by the fact that they were able to treat early cases with a series of twenty rather than the customary shorter course of shocks.

Another comprehensive follow-up of almost 300 cases was the subject of a report by L. H. Smith, D. W. Hastings, and J. Hughes. These Philadelphia psychiatrists estimated a recovery rate of about 90 per cent in patients suffering from involution melancholia. The results with manic-depressive patients were satisfactory, but the majority of schizophrenics failed to improve. A recheck over a period of two years disclosed that there were few relapses in the involution melancholia group. However, some of the depressions did relapse. Another carefully observed group of patients was summarized by B. L. Pacella and S. E. Barrera. According to their figures, there was a 90 per cent recovery rate in depressions. The schizophrenic group showed but temporary improvement.

A paper recommending the use of electro-shock therapy as an office and ambulatory treatment was given. L. Wender, B. H. Balser, and D. Beres found the clinical results satisfactory, the dangers minimal, and the advantages significant. The economy and the sparing of embarrassment are among the outstanding advantages of office treatment. An interesting paper in this symposium was the report of a nationwide survey made by L. Kolb and V. H. Vogel of the United States Public Health Service. These physicians canvassed 305 mental hospitals, including federal, state, and city institutions as well as private sanitaria. The replies to their inquiry showed that some 85 per cent of all such hospitals were using some form of shock treatment. Pertinent to our discussion are the accumulated figures showing that over 7,000 patients have already been treated by the electrical method. The results have been favorable and the mortality rate less than 0.1 per cent.

We may mention in passing, an outstanding paper on insulin by E. D. Bond and T. D. Rivers. These authors made a follow-up study of insulin therapy over a span of some one to five years following conclusion of treatment. Their statistics show a rate of improvement with insulin which is twice that of the spontaneous recovery rate.

The above papers evoked considerable discussion, which included significant comments by B. J. Alpers, A. Myerson, and A. E. Bennett. Myerson gave warm praise to the shock therapy of psychoses and rated its value far above any method previously employed. Bennett considered electro-shock treatment as more or less a specific for depressions, but was extremely skeptical about its permanent value in schizophrenia. He advocated the use of curare as a means of reducing fracture complications. An important note of caution was sounded by Alpers, a neuropathologist whose animal experimentation showed the occurrence of petechial hemorrhages in the brains of cats given electric shocks. He reported an autopsy on one patient following an extraordinarily long course of electrical shocks and showed the occurrence of similar hemorrhages.

INTERPRETATION

The intensive follow-up studies from several institutions afford ample evidence of the clinical value of this method. And the survey showing

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*Prepared at the request of the editor.

*From the Department of Medicine (Neuropsychiatry), Lakeside Hospital, and the School of Medicine, Western Reserve University.

the increased use of this procedure attests further to an appreciation of its efficacy.

My personal experience with more than 100 patients has extended over a period of close to a year and a half. I have used the term, electro-coma therapy, for this procedure because there is neither the painful sensation nor the physical collapse which is connoted by the word, shock. My experience with electro-coma therapy has been highly satisfactory. The results, however, depend not upon the method alone, but are determined by the nature of the psychoses. After several treatments, a mood of severe depression with ideas of self-destruction may be changed into a cheerful attitude of a will to live. Such emotional disturbances are the essence of involution melancholia and the depressive states. Consequently, patients with these illnesses respond very well to electro-coma treatment. Unfortunately, schizophrenia is a malignant disease of the psyche with a tendency towards a downward course. Many writers believe that, in a physiologic more than in an histologic sense, it is an organic disease. This may explain the failure of many patients with schizophrenia to respond to the treatment or the frequency of relapses after initial improvement. Even in schizophrenia, however, shock therapy will often make the patient more manageable or effect a distinct, though temporary, improvement. It has been found that tube feeding and restraint are employed less when electro-coma therapy is available.

The remarkable alteration in mood from conflict to confidence, from self-destruction to self-esteem, is achieved by an electro-chemical reaction in the brain. Such a reaction, with its favorable clinical effect cannot be obtained without certain risks. Immediately there is amnesia and at a later date there may be some further changes. The convulsive reaction, though short, involves the risk of fractures of from zero to six per cent. Thus, in each instance, the physician who considers electro-coma therapy must weigh the possible benefits against the hazards. According to the reports at this meeting and from my own personal experience, the therapeutic advantages in selected cases are outstanding. However time may ultimately appraise electro-coma therapy, one may state that the shock methods have opened a new vista for psychiatry and are today a creditable method for treating certain types of mental disease.

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A Correction

Attention is called to an error appearing in the article, "Fatal Uremia Following Exposure to Carbon Techrachloride Fumes", published in the June issue of The Journal. The second paragraph of the second column on page 555 should have read as follows:

"The possibility that carbon tetrachloride might be the sole cause of this man's difficulty was considered throughout the course of his illness, but we were inclined to doubt its significance, first because we felt that exposure had been slight, and second, because we could find no clinical evidence of hepatic disease. We interpreted the relatively low blood urea nitrogen as evidence of absorption of that very diffusable substance by the tissues and not as a sign of failure of the liver to produce urea. We doubted that, in the absence of clinical jaundice, the liver could be so damaged as to fail to produce urea. The pathological findings corroborate this latter opinion. While it is known that carbon techrachloride may produce a fatal renal lesion without clinical evidence of liver disease, this condition is uncommon and in such a case the exposure to carbon techrachloride is usually severe. Mild respiratory exposure to carbon techrachloride results in headache, malaise, nausea, vomiting and mental confusion, and is followed by rapid recovery. Exposure of sufficient severity is usually associated at the onset with deep anesthesia similar to that in chloroform poisoning. Chemically and pharmacodynamically the two agents have much in common."

Focal Infections of the Nose and Throat

Sound medical opinion in 1941 regarding focal infection is very different from the concept as originally formulated twenty-five years ago. Adequate references for this conclusion are given.

The nose and throat evidence is that sinuses when infected are rarely the cause of systemic disease, that the positive relationship of infections in the tonsils to systemic disease is not invariable, and that the removal of harmless tonsils as a prophylactic measure is unjustified in the majority of cases.

In spite of this, other current articles show that many writers have not kept abreast of the times. The public and the mass of the medical profession as well require to be told in no uncertain terms that the removal of a presumed focus of infection is not the Utopian short cut to the eradication of disease.—D. E. Staunton Wishart, M.D., Toronto, Canada; Jour. M.S.M.S., Vol. 41, No. 6, June, 1942.

In 1936 the death rate from pneumonia in the United States was 93.0 per 100,000 population while in 1940 it was 53.8, according to the United States Public Health Reports. Comparable figures for Ohio were 84.6 in 1936 and 55.5 in 1940.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBEBRCULOSIS IN INDUSTRY

Tuberculosis has been regarded as the great enemy of the printer (printers and painters have about 16 per cent more tuberculosis than all occupied males) and in turn was attributed to lead poisoning which printers might have contracted. Certain studies indicate that neither lead absorption nor lead intoxication is the cause of excess tuberculosis among lead and zinc workers.

Fumes and gases are inhalable and many of them are sufficiently irritating to provoke severe inflammatory reaction. Mature judgment on the effects of gas used by the armies during the last war reversed the early opinion that this agent was responsible for the excess of tuberculosis that developed. Routine annual examination of a large group of employees engaged in the manufacture of chlorine, phosgene, hydrofluoric acid and other irritating gases, supports the view that exposure to irritant gases is not responsible for excess tuberculosis.

The general thesis that inflammation of the lungs is necessarily unfavorable to the course of associated tuberculosis has little support. It is probably true that certain kinds of inflammatory reactions may have some influence. The increased incidence of tuberculosis that followed epidemic influenza may have been due in part to pneumonic complications.

In grain handlers exposed to high concentrations of organic dust in unloading lake steamers, 2.5 per cent of a group of 234 showed X-ray evidence of clinically significant tuberculosis and another 2.3 per cent had old healed lesions. Social-economic factors rather than grain dust were thought to be responsible. Tobacco dust has been under suspicion of a cause of tuberculosis since Ramazzini's time in 1700. Yet, in a modern cigar factory with a well organized medical service and air conditioned rooms there was less tuberculosis than in the city where the plant was located. Metropolitan mortality figures for 1937-39 show an index for tuberculosis of 107 in cigar and tobacco factory operatives but it should be noted that 75 per cent of the labor, which now produces only 25 per cent of the product still works in small shops without health supervision.

Low rates for tuberculosis were found in the Saranac Laboratory studies of the cement and gypsum industries. The usual amount of healed infection was disclosed, so that opportunities for infections had not been lacking.

All these observations support the view that exposure to organic and nonsiliceous dusts has little influence on susceptibility to tuberculosis. Reports on foundries, quartz mining and the granite industry brought out that higher tuberculosis rates prevail in these trades, that there is a greater tendency for such infection to develop after the age of 40 rather than earlier and that the infection is extremely chronic, often giving no symptoms of intoxication or a positive sputum until shortly before death. In miners the incidence becomes higher and the prognosis of associated tuberculosis worse as the silicotic reaction increases. Miners exposed to silica dust with no roentgenographic evidence of reaction showed little more tuberculosis than the community in which they lived. Foundries seem to be responsible for the least amount of tuberculosis, while the granite industry showed that it probably caused the most.

Vermont marble workers had two and one-half times as much tuberculosis as the general population of the state (largely rural) exclusive of the granite center in Barre. By contrast, the rate for granite workers was 130 times the general one.

The value of a good industrial hygiene program was brought out by the experience of the Eastman Kodak plant. This program costs $10,500 annually, but it also costs $3,218 to treat one minimal case of tuberculosis. The attack rate in this plant has fallen from 2.3 at the outset of a study to 0.2 at the present time.

The complexities of compensation insurance carriers were discussed. One plan proposed was that evidence of tuberculosis in any form should preclude employment in industries with silica or other proved hazards and that compensation should be allowed for all tuberculosis subsequently developing in such employment. In other industries, with no specific hazards, persons with healed tuberculosis should be permitted to work but no compensation should be allowed for infections that might become active or develop during employment.

In the summary it was pointed out that, aside from nutrition and social-economic factors, silica is the only other one which has a recognized effect on susceptibility to tuberculosis. Many industrial conditions popularly accepted as predisposing to this disease are without measurable effect.—A Resumé. Journal of Amer. Med. Assn., Feb. 21, 1942.

Current Thinking in the Field of Allergy

MODERN clinical allergy is growing up. The American Association for the Study of Allergy recently offered its twentieth annual program under the presidency of Milton B. Cohen, M.D., of Cleveland, Ohio. The meeting was characterized by papers of better than average quality. There was no longer the wrangling over the stock half-dozen controversial questions which the allergists have gone over again and again at each of the meetings for the past 20 years.

The best evidence of progress in this field is the introduction of sound statistical methods of analysis in the interpretation of figures. This distinct advance has been brought about through the insistence of Dr. Efron of New Orleans. Dr. Browning of Shreveport, Louisiana, reported the results of skin tests by the cooperative group that are studying molds and fungi. Their saline extracts of mold spores made in the best manner that their chemist knew how proved upon critical application to be about as effective as a good guess, i.e., the skin tests had a 40 per cent error. This means that their extracting materials do not get the antigenic substances out of these hard shelled spores. The whole group, therefore, is going back to the study of extraction in which work we could all be saved much effort if we control ourselves by the use of statistical methods.

Single allergens came in for much discussion. O. C. Durham of Chicago, warned the allergists to be on the lookout for cases of hay fever due to *Kochia Scoparia.* This pernicious weed is well known as Burning Bush, Mexican Fire Weed, Fire Ball, Fire Bush, and Summer Cyprus. It is now rampant in Colorado, Nebraska and Iowa. It is getting a good start in Chicago and northern Illinois and has been found as far east as Detroit. Physicians in Ohio therefore should certainly be on the lookout for it. It probably got its start as a pest by a reversion from the cultivated variety commonly used as a decorative plant under the name of Summer Cyprus. An appreciable volume of a new and unrelated air-born pollen would certainly complicate our relatively early fall season here in Ohio.

Other allergens discussed were vegetable gums by Harold Gelfand, M.D., of New York; house dust by Marion T. Davidson, M.D., of Birmingham, Alabama, and insulin sensitivity by Myron Weitz, M.D., of Cleveland, Ohio. This case of insulin protein sensitivity behaved like serum sickness in all respect. Dr. Davidson emphasized that many of our house dust cases are, after all, really sensitive, not to any unknown substance but to some one or more of the components of house dusts, such as animal emination. The Gelfand study of vegetable gums showed a pretty close relationship between gum arabic and tragacanth. The relationship is not exactly identical. Karaya belongs to another botanical family. Louis Tuft, M.D., and George Blumstein, M.D., of Philadelphis, reported further on the existence of specific sensitivity to fresh fruits which was not demonstrable in the usual routine fashion and are dependent upon labile substances.

Drs. Harsh of San Diego and Huber of Chicago reported that when giant ragweed pollen extract was subjected to digestion by freshly assayed pancreatin and highly active pepsin the digest showed a marked loss of activity up to 90 per cent. While this reopens the question it does not interfere with the observation of Rockwell of Cincinnati that ordinary gastric digestion does not destroy the active substance in pollen.

Robert W. Lamson, M.D., and his associates of Los Angeles County General Hospital reported another series of 86 cases accumulated in the past five years whose death it was stated on the chart had been due to asthma. The study supported the thesis that not all who wheeze are affected with asthma nor can one depend upon clinical relief from such a drug as epinephrine to make the diagnosis of asthma. Their study showed that wheezing may be a manifestation of a great variety of abnormalities of the respiratory tree or of the circulatory apparatus. When these conditions have been present for a long time before the first attack of paroxysmal dyspnea, the evidence seemed to indicate that the latter is but a symptom of the various abnormalities. The authors believe that the reverse sequence is rarely demonstrable. Asthma of long standing rarely produces marked abnormality of the heart or vascular apparatus.

Paroxysmal dyspnea did not seem to be a precursor of pulmonary tuberculosis or any excessive pulmonary fibrosis or bronchiectasis. The authors were not able to find any pathological changes in the adrenals, thyroid, or thymus. In no patient, even including the four female children, was there any "generalized lymphoid hyperplasia." A careful history in their hands proved invaluable in establishing sequential relationships and formed the basis of their separation of these people who were signed out with death due to asthma as belonging in two well defined groups. First, typical asthma and, second, a group of all the other types of paroxysmal dyspnea. This study confirms a previous report by the same authors and adds nearly twice as many cases to their series. The point of all this, it seems to us, is that even the most skilled physicians are apt to confuse the various types of paroxysmal dyspnea with true bronchial asthma and all this serves to emphasize what we have harped on for years that such terms as intrinsic asthma offer altogether too easy an alibi for our own laziness or incompetence. Someone at the meeting said that this study emphasized the need for boards for certification of specialists. If this is true then it means we need another board to certify the certified specialists because practically all the men who sign the death certificates are nationally known internists certified by the already existing boards. This to our mind reduces the whole business of certification to absurdity so far as it involves individual incompetence.

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*This is an attempt by the Editor to make a report on a meeting of a special National Society. It is to be hoped that we can get similar reports from other meetings.

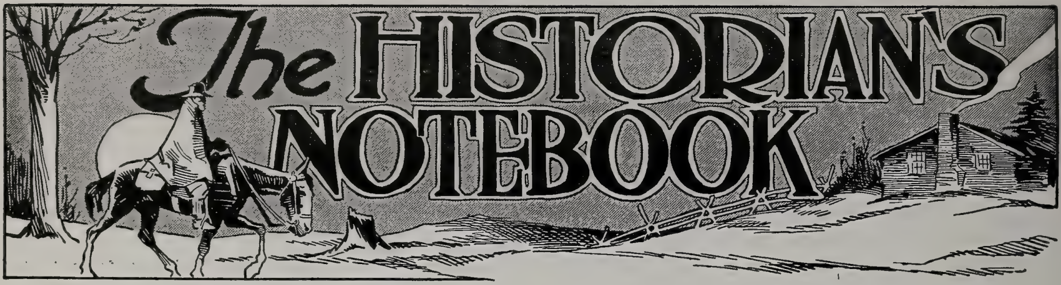
Stanley Cohen, M.D., formerly of Cleveland, now of New Orleans, reported a series of patients who while they were having their attacks of hay fever and asthma apparently required much larger amounts of Vitamin C to maintain their blood level of this vitamin. Leo Crisp, M.D., of Pittsburgh, presented a rather simple method for drying extracts to be used in the practice of allergy. He described in detail the technique of the cryochem process for desiccating large amounts of allergens.

J. Alexander Clarke, Jr., M.D., of the Jefferson Medical College Hospital and his associates reported on careful studies which they made on the patients in the medical wards, the obstetric ward, and a limited study (x-ray) of the student nurses. They found a surprising amount of disease increasing somewhat with the age and the nature of which is still a mystery. It involved the respiratory system. It did not seem to be due to allergy according to our present conception of allergy. The incidence of positive skin tests, of eosinophilia, or of positive family history is low. Infection acute and chronic seems still to be the most reasonable explanation according to the authors. To your reporter, it would seem that they were describing the respiratory effects of undernourishment. This is a condition which one might well expect to find frequently among the hospital population of a teaching hospital. One would expect pneumonia to be a frequent complication and so the authors report. This report should make us all alert to wet nasal, sinus, and bronchial membranes and the possibility that patients who have such conditions may well be undernourished. The more attention that we pay to the patient's nutrition whom we suspect of having allergy the better will be our results.

J. Warrick Thomas, M.D., of Cleveland, and Meryl Fenton, M.D., of Detroit, reported in detail on three deaths due to pontocaine used as a local anesthetic in allergic patients and six other instances of pontocaine reaction of a severe constitutional character but with recovery.

The thing that spoke best for the future of allergy in this country was the several papers devoted to fundamental principles. Harold A. Abramson, M.D., of New York City, discussed the factors involved in the electrophoresis as it is applied to the study of allergy and immunology. He also described the use of the electric field to separate particles of different electrical charge and the use of gravitational methods such as the untra-centrifuge to separate particles of different sizes. The use of these methods opens up new fields in which the antigen is not destroyed or modified by mechanical and chemical treatment and promises to add much to our knowledge of allergy. President Cohen's address discussed the relationship between the basic principles of immunology and allergy. This was further amplified by the two addresses of Paul R. Cannon, M.D., of the University of Chicago, and J. J. Bronfenbrenner, M.D., of Washington University, St. Louis. Thus allergists go forward to search for the ultimate causes, but the practicing physician had best keep his clinical information filed under the subdivisions of anaphylaxis, atopy, contact allergy, serum sickness, bacterial allergy, and physical allergy, so that he will not become confused in the care of his patient.

Most of the luncheon table conversation had to do with the war and the part each of us could play. Most of the men seemed anxious to serve our country but felt that they could do this best by "doing allergy" for which they were fitted by temperament and experience. Some 7000 asthmatics turned up in the last war but in the present selected army most significant allergy has been screened out by the induction officers. In the meantime the whole specialty of allergy has been developed. Most men came away, we felt, with a clearer understanding of the reasonableness of the Army's and Navy's policy in this matter. Both services have recognized allergy as a specialty and made provision for it in the set-up of base hospitals. It would seem reasonable therefore to assume that if an allergist found himself attached to a base hospital, he might expect to be given work suitable to his training but this would in practice depend upon the attitude of the chief of the medical service towards allergy as a specialty and his concept of the need in his hospital for this special service. In most instances, therefore, the allergist would find himself functioning as an internist. This is a sound organization policy from the viewpoint of the service even if at times it might not be a happy one for the individual allergist. Most men came home with a resolve to be ready to do their part whenever and whatever was needed. Four or five days of blackouts and constant dimouts with observation balloons overhead, air patrol, and coastwise convoys off shore sent us back to the middle-west with a realization that there is a war on and we must get ready.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A Medical School for Kenyon College

Mt. Vernon, O.
Jan'y 22, 1844.

Hon'ble E. Lane
Dr Sir

The Physicians of this place and vicinity have for some time past been consulting with the Bishop and some of the Trustees of the College, to ascertain if the Seminary has power to establish a medical department, and to confer degrees in the science of medicine. Under the Bishop advice they have held a meeting and requested me correspond with you, (and if you are willing) to obtain your opinion upon the following questions

"Have the 'President and Professors of Kenyon College' power to confer degrees in the science of Medicine"?

"Can the funds and property necessary for such a department be so managed and controlled as to be kept distinct from the college property; or will such funds and property be liable for the debts of the Seminary, and will the Seminary be liable for the debts incured by the medical department?

To enable you to form an opinion with as little trouble as possible I have copied on to the other pages of this sheet the only legislation which I suppose it necessary for you to refer to.

Respectfully,
C. DELANO.

* * *

An Act further supplementary to an act entitled "an Act to incorporate the Theological Seminary of the Protestant Episcopal Church in the Diocese of Ohio.

Sec. 1. That the Trustees of the Theo. Sem'y of the Pro. Ep. Church in the Dio. of O. shall have power to establish in Connection with said Seminary a College, and Halls for preparatory education, that they shall have the Care and Management of all property which has been or may hereafter be given, or is otherwise possessed for the use and benefit of the same; and to appoint a President and Proffessors and all necessary officers for the purpose of government, and instruction in said College and Halls.

Sec. 2. The Pres't and Professors of said College shall constitute a faculty with the power of conferring degrees in the Arts and Sciences and of performing all such other acts as pertain to the faculties of Colleges for the encouragement and reward of learning; and the name and style by which said degrees shall be confered shall be that of "the Pres't and Professors of Kenyon College in the State of Ohio."

The 3d and last sec. enacts that the Pres't and Prof. of the Theo. Sem'y shall also constitute a faculty with power of conferring degrees in Theology and of doing such other acts as appertain to such faculties for the encouragement of Theological learning, etc., by the name and style of the "Pres't and Prof. of the Theo. Sem'y in the Dio. of O.

Your answer at as early a day as convenient will I presume much oblige those at whose instance I have written.

C. D.

Hon'ble E. Lane,
Sandusky City, Ohio.

Letter in possession of Irving S. Cutter, M.D., Chicago, Illinois.

Delano, Columbus

Born in Shoreham, Vt., 1809. Moved to Mount Vernon, Ohio, in 1817. Practiced law in Mount Vernon and became eminent as an advocate and criminal lawyer. He was a delegate in 1860 to the National Republican Convention at Chicago which nominated Lincoln and Hamlin. Served as state commissary-general of Ohio, 1861; was a member of the Ohio house of representatives in 1863; and was elected a member of congress from that state in 1844, 1864, and 1866. In 1869 he was appointed by President Grant commissioner of internal revenue. Succeeded Cox as secretary of the interior in 1870; a portfolio which he retained until 1875. Was for many years a trustee of Kenyon College, which conferred on him the degree of LL.D., and in connection with which he endowed a grammar school called Delano Hall.

Lane, Ebenezer

Jurist, born in Northampton, Mass., in 1793; died in Sandusky, Ohio, in 1866. He was graduated at Harvard in 1811, studied law under his uncle, Matthew Griswold, of Lyme, Conn., in 1814 was admitted to the bar, and, after practising for three years in Connecticut, removed to Ohio and settled in Norwalk, Huron County. He became judge of the court of common pleas in 1824, and from 1837 till 1845 was judge of the supreme court of Ohio. After his retirement from the bench he resumed his profession and was afterward engaged in various relations with the western railroads, withdrawing from active employment in 1859.

The Present Crisis Challenges the Initiative and Courage of the Medical Profession—A Program of Action Suggested

By the President, E. J. McCormick, M.D.

THE officers of the Ohio State Medical Association realize that during the next 12 months all physicians will of necessity be overburdened with professional duties. Your president would, however, be remiss in his duty if he failed to sound "the alert" and call the attention of all physicians to the months ahead—months which shall bring greater responsibility to doctors even as they shall bring greater demands upon the patience of the American Laity.

It is my belief that the future of Medicine will be decided in the next year. What the decision will be depends largely upon the members of the profession. We have endeavored for years to control our own destiny and keep American Medicine on the pinnacle of accomplishment. Our individual and collective activities during the next few months of the National Emergency will in great part decide whether or not we, as members of the medical fraternity, shall dictate the issues of the near future.

Shall we retain individual initiative in Medicine? Shall we remain world leaders in medical progress? Shall we continue to minister to the bodily needs of our fellows as we have since Hippocrates? Shall the code of medical ethics remain intact? Shall medicine remain a profession, respected as such, or shall it become a trade? Are we to be entangled by an expanding social security program and eventually become "pill peddlers" and "blank signers"? Shall we become hopelessly engulfed in the tidal wave of social reform or do we choose to remain an unhampered democratic group, citizens of a true democracy? Shall we by force of arms and sacrifice of thousands of lives and expenditure of billions of dollars save Democracy only to see Democracy perish on the guillotine erected by soap-box orators, reformers, and vote seeking politicians?

If Medicine is preserved America can be saved as a true Democracy, and to accomplish this we must take our places as community leaders and leave our laboratories long enough to lend a hand in guiding the Ship of State through the perilous waters ahead! Much depends upon the interest and willingness of the individual physician.

With these thoughts in mind, your President directs to your immediate attention the following four-point program of the present Administration:

1. We must do our patriotic duty at the present time and furnish to the Armed Forces of our Country as many physicians as they may need. It has been implied at the recent American Medical Association Meeting that if we fail, other methods may be used to enlist a sufficient number of physicians. We must not fail! Failure to do our part now will father disaster in the months to come. Let every physician who should be in the service give serious thought to this idea. Conscription of physicians in the present war effort will probably mean continued conscription by government after the war.

2. Those physicians remaining in civil practice, general practitioners and specialists, old and young, male and female must resolve now to assume individual responsibility for the welfare of the sick and poor, with or without remuneration that no criticism can come to us on the home front.

3. We have an answer to our present critics, who claim that good medical care is not available to all, in the form of a medical plan patterned in a general way upon the hospitalization plans. Either we make available and control the plans in our various counties or some plans will develop in which we shall become clerks and hired hands.

4. Every physician and every medical society must assume the added burden of post-war planning. Post-war schemes are already being discussed and drafted by groups bent on "reforming" the practice of medicine. We have in our ranks hundreds of leaders, men who know what the post-war days will bring and who realize the increasing danger, not only to medicine but to the very fundamentals of Democracy. Let us act now, that those who follow us may be gratified, not only for our contributions to Medicine but also for our vision and subsequent preservation of the high standards of American Medicine and sacred physician-patient relationship.

EDWARD J. McCORMICK, M.D., President.

Every Available Ohio Physician of Military Age Being Requested by Procurement and Assignment Committee To Apply for Army Medical Corps Commission at Once

EVERY available Ohio physician of military age is being requested by the Ohio Procurement and Assignment Committee to immediately file an application for a commission in the Army Medical Corps with the Ohio Medical Officer Recruiting Board which is holding meetings at various cities throughout the state.

The War has reached a critical stage and tremendous expansion of the Army is taking place. There is a real shortage of medical officers at present. The Army has estimated that it will need 20,000 additional medical officers during the next few months, THOUSANDS OF WHOM ARE NEEDED IMMEDIATELY.

Army and Procurement and Assignment officials estimate that the services of every available qualified physician of military age (who did not reach 45 years of age before last February 16) will be needed before the end of the year if the over-all need of the Army for medical officers is to be met.

At present approximately 980 Ohio physicians are on active duty as medical officers in either the Army or Navy. It has been estimated that this figure will be more than double by the end of 1942.

RECRUITING IN OHIO LAGGING

In the opinion of the Ohio Procurement and Assignment Committee, OHIO IS NOT SUPPLYING A SUFFICIENT NUMBER OF MEDICAL OFFICERS FOR THE ARMY. The committee has issued an appeal to all available physicians of military age to apply for a commission at once as "the need is here and now is the time for concrete action".

Following is the text of a communication which is being sent to all available Ohio physicians of military age requesting them to see the Recruiting Board now and apply for a commission.

"YOUR SERVICES NEEDED NOW BY ARMY MEDICAL CORPS

"Dear Doctor:

"Due to rapidly changing conditions and the crisis which has been reached in the War, the Ohio Procurement and Assignment Committee finds it necessary to advise you to immediately make application with the Ohio Medical Officer Recruiting Board for a commission in the Army Medical Corps.

"The Army needs thousands of medical officers. IT NEEDS THEM NOW. Ohio is not supplying a sufficient number of medical officers. If the over-all need of the Army for medical personnel is to be met, it will be necessary for you and other available physicians of military age (those who did not attain the age of 45 years before last February 16) to apply for a commission at once. The committee urges you to DO THIS NOW.

"The Army could obtain medical officers by asking Selective Service to act. But, THE MEDICAL PROFESSION OF OHIO MUST NOT WAIT FOR SELECTIVE SERVICE TO TELL IT WHAT TO DO. Many Selective Service Boards, in considering the classification of a physician and his dependency, are taking into account the pay and allowances which he would receive in event he is commissioned after induction. BUT, INDUCTION OF PHYSICIANS THROUGH SELECTIVE SERVICE MUST NOT TAKE PLACE. The physicians of Ohio must meet their responsibilities voluntarily—and now.

These are cold, hard facts—facts which must be faced now by physicians of military age as the hour of decision and greatest need is at hand. We would be remiss if we did not bring them to your attention at this time.

"SIGNING OF A PROCUREMENT AND ASSIGNMENT BLANK IS NOT ENOUGH. Regardless of whether you did or did not sign a Procurement and Assign-

BOARD'S SCHEDULE OF MEETINGS

Following is the new schedule which will be followed by the Board during July and part of August, barring unforeseen conditions which would force modification of the schedule at a later date:

DATE CITY PLACE

July 1, Akron, Class Room, Nurses' Home, Akron City Hospital, E. Market St.
July, 2 Youngstown, Southside Hospital Service Room, Oak Hill and Francis Street.
July 7, 8, 9, Toledo, Toledo Academy of Medicine, Monroe at 15th.
July 11, Columbus, Assembly Room, Ohio Senate, State House.
July 14, 15, Cincinnati, Cincinnati Academy of Medicine, 690 Union Central Building.
July 16, Portsmouth, Portsmouth General Hospital, 2001 Chillicothe Street.
July 17, Marietta, Marietta Memorial Hospital, Delaware Ave. and Superior Street.
July 20, 21, 22, Cleveland, Cleveland Academy of Medicine, Euclid Ave. and Adelbert Road.
July 24, Columbus, Assembly Room, Ohio Senate, State House.
July 27, 28, 29, Toledo, Toledo Academy of Medicine, Monroe at 15th.
July 31, Columbus, Assembly Room, Ohio Senate, State House.
August 3, 4, Cincinnati, Cincinnati Academy of Medicine, 690 Union Central Building.
August 5, Portsmouth, Portsmouth General Hospital, 2001 Chillicothe Street.
August 6, Marietta, Marietta Memorial Hospital, Delaware Ave. and Superior Street.
August 10, 11, Cleveland, Cleveland Academy of Medicine, Euclid Ave. and Adelbert Road.

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ment Blank, THE STEP WHICH MUST BE TAKEN NOW IS THE SIGNING OF AN APPLICATION FOR A COMMISSION IN THE ARMY MEDICAL CORPS. This may be done by seeing the OHIO MEDICAL OFFICER RECRUITING BOARD. If you filed an application longer than four weeks ago with the Surgeon General or the Washington office of Procurement and Assignment, SEE THE RECRUITING BOARD NOW AND FILE A NEW APPLICATION.

"See the Recruiting Board and file an application when the Board meets at 9:30 A.M. at (place of meeting to be designated)
BE THERE PROMPTLY AT 9:30 A.M. TO GET ESSENTIAL GENERAL INFORMATION AND ADVICE FROM THE BOARD AS THE MEETING OPENS. Take with you your medical school diploma, state license and certificate of specialty board or society, if any.

"THIS IS THE LAST OFFICIAL CALL OF THE OHIO PROCUREMENT AND ASSIGNMENT COMMITTEE FOR VOLUNTARY ACTION ON THE PART OF THE MEDICAL PROFESSION OF OHIO. MANY OHIO PHYSICIANS HAVE INDICATED THEY ARE READY TO SERVE WHEN NEEDED. THE NEED IS HERE AND NOW IS THE TIME FOR CONCRETE ACTION. When you have filed your application for a commission notify the undersigned at once.

Ohio Procurement and Assignment Committee,
Robert Conard, M.D., Chairman."

The Ohio Medical Officer Recruiting Board has held meetings in areas constituting about three-fourths of the state. In some areas there has been a good response on the part of physicians and a sufficient number in proportion to the medical population of those areas have applied for commissions. However, in general the response

on the part of the profession has been disappointing to Army officials and the Procurement and Assignment Committee, and Ohio has not kept pace with results which have been obtained by recruiting boards in some other Middle Western states.

RECRUITING BOARD SHOULD BE SEEN

The Recruiting Board has drafted a new schedule of visits to various centers for the month of July and part of August. Available physicians of military age are being requested by the Ohio Procurement and Assignment Committee to meet with the Board at specific centers—cities near the home communities of the physicians—and file an application for a commission at that time. However, if a physician finds it impossible to meet with the Recruiting Board at the place designated in the communication which he has received, or will receive, from the Procurement and Assignment Committee, he may confer with the Board when it meets at some other center. THOSE MEETING WITH THE BOARD SHOULD ARRANGE TO BE AT THE MEETING PROMPTLY AT 9:30 A.M., AT WHICH TIME THE BOARD WILL PROVIDE ALL PRESENT WITH ESSENTIAL GENERAL INFORMATION AND ADVICE REGARDING QUALIFICATIONS, RANK, ETC.

Members of the Recruiting Board are: Major Hiram S. Perry, representing the Adjutant General's Office, and Captain Clarence E. Northrup, M.C., representing the Surgeon General's Office.

Don't Act Hastily In Closing Office!

AFTER a physician has filed an application for a commission he should not act hastily in closing up his personal and business affairs, according to Army officials. There may be a lapse of three, four or five weeks—perhaps longer—between the filing of an application and receipt of a commission and order to report for active duty. A minimum period of two weeks is allowed a newly-commissioned officer to conclude his personal and business affairs before he is expected to report for duty.

Therefore, a physician after filing an application for a commission should not close his office immediately—in fact, he should wait until he is actually sworn in before taking any steps to do so. Even then, it may be a period of weeks before he receives orders to report for duty.

MORE PHYSICIANS COMMISSIONED

The following 117 Ohio physicians have been commissioned in the Army or the Navy and ordered to active duty during the past month—since the June issue of The Journal went to press and in which the names of 129 additional Ohio medical officers were published. The grand unofficial number of Ohio physicians now on active duty with the armed forces is approximately 980.

Name	City	Rank
Anzinger, Robert J.	Springfield	1st Lt., U.S.A.
Apple, James D.	Dayton	1st Lt., U.S.A.
Ashe, Wm. F., Jr.	Cincinnati	Capt., U.S.A.
Ball, O. D.	New Lexington	Capt., U.S.A.
Beasley, Norris M.	Athens	1st. Lt., U.S.A.
Beeson, Harold G.	Wooster	Capt., U.S.A.
Bell, Jos. J.	Cincinnati	1st. Lt., U.S.A.
Berkow, Abraham	Chillicothe	1st Lt., U.S.A.
Bernard, Cohn H.	Cleveland	Capt., U.S.A.
Black, James A.	Silverton	1st Lt., U.S.A.
Black, Sam Haigler	Akron	Lt. Comdr., U.S.N.
Bonar, L. D.	Mansfield	1st Lt., U.S.A.
Breitbart, Raymond	Middletown	1st Lt., U.S.A.
Cassidy, R. H.	Columbus	Lt., U.S.N.
Cronick, Chas. H.	Youngstown	1st Lt., U.S.A.
Dixon, James G.	Cincinnati	1st Lt., U.S.A.
Domalski, Florian R.	Toledo	Capt., U.S.A.
Drolett, Donald J.	Cincinnati	1st Lt., U.S.A.
Elsey, Edward C.	Cincinnati	Major, U.S.A.
Epler, Deane Chandler	Columbus	Capt., U.S.A.
Epstein, Francis W.	Toledo	1st Lt., U.S.A.
Farmer, Howard	Fletcher	1st. Lt., U.S.A.
Fierst, Sidney Morel	Cincinnati	1st Lt., U.S.A.
Fine, Archie	Cincinnati	Capt., U.S.A.
Fisher, Alexander S.	East Liverpool	1st Lt., U.S.A.
Freiden, Jos. N.	Norwood	1st Lt., U.S.A.
Fulton, Stewart	Cleveland	1st Lt., U.S.A.
Furste, Wesley L.	Columbus	1st Lt., U.S.A.

Name	City	Rank
Goldblatt, Samuel	Cincinnati	Major, U.S.A.
Hahn, Paul D.	Warsaw	1st Lt., U.S.A.
Haller, Harry A.	Cleveland	Lt. (j.g.) U.S.N.
Hankinson, D. O.	Columbus	Capt., U.S.A.
Hapke, Fred B.	Troy	1st Lt., U.S.A.
Harris, Henry C.	Dayton	Major, U.S.A.
Hatcher, E. R.	Columbus	Capt., U.S.A.
Hawk, Alpha F.	Urbana	Capt., U.S.A.
Haydon, Geo. Blande	Cincinnati	1st Lt., U.S.A.
Heywood, Howard W.	Cincinnati	1st Lt., U.S.A.
Hill, F. A.	Columbus	1st Lt., U.S.A.
Hill, Willard T.	Ashtabula	1st. Lt., U.S.A.
Himmel, Jacob G.	Cleveland Heights	1st Lt., U.S.A.
Hirst, David L.	Miamisburg	1st Lt., U.S.A.
Holmes, Nicholas H.	Columbus	1st Lt., U.S.A.
Howell, Homer P.	Dayton	Capt., U.S.A.
Hull, Bradley	Cleveland	1st Lt., U.S.A.
Hunter, Geo. G.	Ironton	Major, U.S.A.
Johnson, Walter A.	Rossford	1st Lt., U.S.A.
Jubelirer, Richard A.	Cincinnati	1st Lt., U.S.A.
Keating, Edward T.	Hamilton	1st Lt., U.S.A.
Kessel, Sol	Cincinnati	1st Lt., U.S.A.
Keyes, John E. L.	Cleveland	Major, U.S.A.
Keys, Harry J. Jr.	Columbus	1st. Lt., U.S.A.
Klinge, John E.	Massillon	1st Lt., U.S.A.
Kloffer, Edward	Columbus	Capt., U.S.A.
Koch, Geo. E.	Cincinnati	Capt., U.S.A.
Kolb, Geo. C.	Cincinnati	Capt., U.S.A.
Krupko, Paul E.	Cleveland Hgts.	1st. Lt., U.S.A.
Kurlander, Jos. J.	Cleveland	Major, U.S.A.
Lapirow, Harry	Cincinnati	Capt., U.S.A.
Lawrence, Gerald P.	Columbus	Col., U.S.A
Lawrence, Hans W.	Cleveland	Major, U.S.A.
LeSar, Geo. W., Jr.	Cleveland	1st. Lt., U.S.A.
Luidens, Henry	Cleveland	Capt., U.S.A.
Mack, Jas. R.	Cincinnati	Capt., U.S.A.
Maczuga, John A.	Toledo	Capt., U.S.A.
Mancin. Alexander	Cleveland	1st Lt., U.S.A.
Marshall, Edw. A.	Cleveland	Major, U.S.A.
Master, John R.	Cleveland	1st. Lt., U.S.A.
Mastropaolo, A. J.	Batavia	1st Lt., U.S.A.
McCormick, J. E.	Zanesville	Capt., U.S.A.
Meredith, Roy M.	Marietta	1st Lt., U.S.A.
Mincks, Chas. B.	Cuyahoga Falls	1st Lt., U.S.A.
Mowry, Benjamin Franklin	Findlay	Major, U.S.A.
Mowry, Robert S.	Lima	1st Lt., U.S.A.
Nimitz, Herman J.	Cincinnati	Major, U.S.A.
Northrup, Deane H.	Marietta	1st. Lt., U.S.A.
Piper, Robert Seymour	Cincinnati	1st Lt., U.S.A.
Price, John Evan	Cincinnati	Capt., U.S.A.
Purfield, Wm. P.	Cincinnati	1st Lt., U.S.A.
Rankin, Thomas J.	Oxford	Major, U.S.A.
Reading, Robert A.	Cleveland	Lt. Comdr., U.S.N.
Renner, Geo.	Cincinnati	Major, U.S.A.
Rheingold, Jack J.	Cincinnati	1st Lt., U.S.A.
Ringelman, Norbert	Cincinnati	1t Lt., U.S.A.
Roberts, David A.	Dayton	1st Lt., U.S.A.
Roden, Carl A.	Hamilton	1st Lt., U.S.A.
Romoser, Wm. K.	Columbus	1st Lt., U.S.A.
Rowers, Clarence B.	Bergholz	Capt., U.S.A.
Sailer, Seaton	Cincinnati	Major., U.S.A.
Schroder, Chas. R.	Cincinnati	1st Lt., U.S.A.
Schwartz, Abe L.	Cincinnati	Capt., U.S.A.
Sebastian, Chas. A.	Cincinnati	1st Lt., U.S.A.
Seymour, Miner W.	Columbus	1st Lt., U.S.A.
Shaheen, Gustav S.	Canton	1st Lt., U.S.A.
Shecket, Hyman A.	Cleveland	1st Lt., U.S.A.
Silberman, Henry	Dayton	Lt. Comdr., U.S.N.
Smith, D. K.	Columbus	1st. Lt., U.S.A.
Smith, James K.	Columbus	1t Lt., U.S.A.
Smith, Kenneth M.	Columbus	Capt., U.S.A.
Spragens, Fred E.	Antwerp	1st Lt., U.S.A.
Spyker, Mitchell A.	Columbus	1st Lt., U.S.A.
Stephens. Vernon D.	Columbus	Capt., U.S.A.
Sterne, Eugene H. Jr.	Cincinnati	Capt., U.S.A.
Sternlieb, Max	Wadsworth	1st Lt., U.S.A.
Swango, Wm. R.	Ironton	1st Lt., U.S.A.
Tedrow, Geo.	Crooksville	Capt., U.S.A.
Thomas, Berger	Columbus	Lt., U.S.N.
Thomas, Robert L.	Columbus	Capt., U.S.A.
Wagner, Gordon T.	East Cleveland	1st. Lt., U.S.A.
Wells, Wm. D.	Milford	1st Lt., U.S.A.
Wheeler, Wm. W.	Cleveland	1st Lt., U.S.A.
Whitacre, Daniel J.	Columbus	Capt., U.S.A.
Williams, John A.	Cincinnati	1st Lt., U.S.A.
Wilson, Robert M.	Gallipolis	1st Lt., U.S.A.
Wyker, Albertus C.	Columbus	1st Lt., U.S.A.
Yospur, David	Gallipolis	1st Lt., U.S.A.
Zeve, Herman S.	Youngstown	Lt. Comdr., U.S.N.

PROMOTIONS LISTED

During the month *The Journal* received information that the following Ohio medical officers have been promoted to the rank indicated.

Name	City	Rank
Archer, M. C.	Medina	Major, U.S.A.
Briola, Patsie F.	Cleveland	Major, U.S.A.
Gerson, S. K.	Lancaster	Capt., U.S.A.
Gregg, Walter K.	Dayton	Major, U.S.A.
Hengen, Henry E.	New Riegel	Capt., U.S.A.
Langsam, Chas. Lewis	Macedonia	Major, U.S.A.
Potter, F. C.	Cuyahoga Falls	Lt. Col., U.S.A.
Randell, Asher	Youngstown	Capt., U.S.A.
Wagner, R. L.	Portsmouth	Capt., U.S.A.
Wood, Cyrus R.	Port Clinton	Capt., U.S.A.
Wood, G. Howard	Leesburg	Capt., U.S.A.

CHANGES LISTED

According to information received by *The Journal*, the following physicians, previously reported in *The Journal* as on active duty, are not at this time with the armed forces for the reasons shown: Dr. William J. Fornes, Lakewood (1st Lt., U.S.A.), and Dr. Robert M. Inglis, Columbus (1st Lt., U.S.A.), honorably discharged, physical disability; Dr. William F. Hatcher, Youngstown (Capt., U.S.A.), orders revoked; Dr. E. F. Lindemayer, Ashtabula (1st Lt., U.S.A.), transferred to inactive reserve due to ill health; Dr. John F. Hauss, Celina (1st Lt., U.S.A.), transferred to inactive reserve, and Dr. Charles C. Henrie, Celina, name carried by error—not on active duty.

Summit County Medical Society Holds Centennial Celebration

Celebrating the 100th anniversary of its founding, members of the Summit County Medical Society and their wives and guests attended a Centennial Dinner at the Akron City Club on June 3. Guests included associate-retired members and the widows of deceased members, and the attendance at the affair was 238.

Following the dinner, Dr. K. D. Way gave a brief historical synopsis of the Society's early days and of pioneer members of the profession in Summit County. His talk was illustrated by a number of colored photographs, taken by himself, of many of the Society's older members. The founder and first president of the Society was Dr. Moses Thompson, Hudson. Another popular feature of the celebration was an exhibit of photographs of past presidents, many old records of the Society, old medical books, primitive surgical instruments devised by Summit County physicians, and a collection of 27 medals which have been won by members of the Society in 11 wars in which they have participated. A dance concluded the evening's festivities.

War Problems Main Subjects Discussed at Successful A.M.A. Meeting—Ohio Profession Well Represented

DESPITE restrictions on travel and other difficulties arising from the war, approximately 400 Ohio physicians journeyed to Atlantic City, N.J., to attend the 93rd annual session of the American Medical Association, which was held there June 8 through 12. Total registration of Fellows for the meeting, which was considered one of the most important from the standpoint of scientific value and significance to the profession, was approximately 8,500.

Pan-American unity was stressed at the meeting, with a large number of Canadian and Central and South American physicians in attendance and participating in the program. Evidences of the war were on every hand; Army and Navy medical officers of all ranks, from lieutenants to generals and admirals, were seen in the exhibit halls and scientific halls and scientific sessions, in the House of Delegates, and on the Boardwalk.

Names of the large number of Ohio physicians who took part in the business and scientific activities of the meeting will be found in the June issue of *The Journal* on page 603.

ALL OHIO DELEGATES THERE

The entire Ohio delegation—Dr. Barney J. Hein, Toledo; Dr. Parke G. Smith, Cincinnati; Dr. William M. Skipp, Youngstown; Dr. John B. Alcorn, Columbus; Dr. George A. Woodhouse, Pleasant Hill; Dr. Harry V. Paryzek, Cleveland; and Dr. Carl R. Steinke, Akron—participated in all sessions of the House of Delegates.

Dr. Clyde L. Cummer, Cleveland, served as delegate from the Section on Dermatology and Syphilology. He was also elected to succeed himself as a member of the Council on Scientific Assembly, and he was appointed to the newly formed Committee on War Participation, which supplants the Committee on Medical Preparedness, dissolved by its own request at the Atlantic City meeting.

Three Ohioans served on reference committees of the House of Delegates. Dr. Steinke was a member on the Committee on Legislation and Public Relations; Dr. Smith was appointed to the Committee on Reports of Board of Trustees and Secretary; and Dr. Cummer was on the Committee on Executive Session.

NEW OFFICERS

Dr. James Edgar Paullin, Atlanta, Ga., was named President-Elect of the Association at the closing meeting of the House of Delegates. He has served for several years as chairman of the Council on Scientific Assembly and is retiring president of the American College of Physicians. A major in the Army Medical Corps during World War I, he serves now as a member of the directing board of the Procurement and Assignment Service.

Col. Fred W. Rankin, Lexington, Ky., now on active duty in the office of the Army's Surgeon General, was installed as president of the Association to succeed Dr. Frank Lahey, of Boston.

Other new officers and other officials elected at the Atlantic City Session include: Dr. William J. Carrington, Atlantic City, vice president; Dr. Olin West, Chicago, secretary; Dr. Herman L. Kretschmer, Chicago, treasurer; Dr. H. H. Shoulders, Nashville, Tenn., speaker of the House of Delegates; Dr. R. W. Fouts, Omaha, vice speaker of the House of Delegates; Dr. Edward M. Pallette, Los Angeles, and Dr. R. L. Sensenich, South Bend, Ind., trustees; Dr. Lloyd Noland, Fairfield, Ala., judicial council; Dr. Reginald Fitz, Boston, council on medical education and hospitals; Dr. Edward L. Bortz, Philadelphia, with Dr. Cummer, council on scientific assembly.

Resolution Sponsored By Ohio Delegates Passed

A resolution seeking to provide refresher course opportunities for physicians in military service at the close of the war was introduced by Dr. Barney J. Hein, Toledo, with sponsorship of the Ohio delegation, and unanimously passed by the House of Delegates of the American Medical Association at its 93rd annual session in Atlantic City June 11.

Under terms of this resolution the Association, through its Council on Medical Education and Hospitals, is requested to foster and encourage refresher courses in general clinical medicine for medical officers at the cessation of hostilities. These courses would be arranged in cooperation with recognized medical colleges and state medical societies. The resolution further provides that the Board of Trustees of the A.M.A. should approach the proper officials of the United States government regarding the granting of furloughs with full pay and allowances to the officers who wish to take such refresher courses.

NEW YORK SELECTED

Dr. Ludwig Hektoen, Chicago, known throughout the world for his work as a pathologist and in cancer research, was awarded the Association's

Distinguished Service Medal at the opening session of the House of Delegates.

Invitations for the 1945 session were received from Atlantic City and New York, and the delegates decided upon the latter. No change was made in the plan to hold next year's meeting at San Francisco and the 1944 meeting at St. Louis.

Attention of the delegates was focused primarily on the problems of wartime medicine, and this was highlighted by two appearances of Paul V. McNutt, Federal Security Administrator and chief of the War Manpower Board, to discuss the recruitment of medical personnel. Governor McNutt addressed the House of Delegates at its formal dinner Monday evening, June 8, and again at its session the next morning. An extension of his remarks on the latter occasion will be found elsewhere in this issue of *The Journal.*

The Woman's Auxiliary to the American Medical Association met concurrently with the Association in Atlantic City. At its annual election session Wednesday, June 10, Mrs. Dale Osborn, Cincinnati, president of the Ohio Auxiliary, was installed as third vice president for the coming year.

Ohio Fellows of the A.M.A. who registered were:

Akron—C. R. Anderson, Millard C. Beyer, Daniel C. Brennan, H. R. Conn, Paul A. Davis, Patrick C. Doran, Samuel Miller, S. Morgenroth, George A. Palmer, Fowler B. Roberts, Carl R. Steinke, Edward L. Voke, Alven M. Weil, Louis A. Witzeman.

Canton—Blanchard V. Antes, S. J. Feingold, Emerson Gillespie, George H. Hackett, Fred G. King, Charles A. LaMont, James A. McNalley, Edward O. Morrow, John D. O'Brien, George D. Poploff, Ralph K. Ramsayer, Homer V. Weaver.

Cincinnati — Edward Alberts, Charles W. Ascher, Oscar Berghausen, R. J. Buckman, Ralph G. Carothers, A. Gerson Carmel, William R. Chambers, Joseph A. Freiberg, Alfred M. Glazer, Leon Goldman, George Heidelman, Charles D. Heisel, Louis G. Herrmann, Louis G. Heyn, Francis F. Heyroth, J. Isfred Hofbauer, Charles A. Hofling, Jr., Robert Edwin Howard, Samuel Iglauer, D. E. Jackson, Karl V. Kitzmiller, Louis A. Lurie, Donald J. Lyle, John J. Maloney, John R. Meek, I. Arthur Mirsky, Harry G. Nelson, Dale P. Osborn, Robert Perlman, Helena T. Ratterman, Horace W. Reid, Robert C. Rothenberg, Barnet Sakler, Harry M. Salzer, Moses Salzer, Bernard Schwartz, Leon Schiff, Francis X. Siegel, Parke G. Smith, Henry A. Springer, Clifford J. Straehley, Richard S. Tyler, Derrick Vail, A. R. Vonderahe, Millard Wallenstein, Ashton L. Welsh, Philip Wasserman, Mendel Zeligs, Jerome Ziegler, Albert R. Zoss.

Cleveland—Paul G. Albrecht, Herman S. Applebaum, Elmore R. Bailey, C. Glenn Barber, George I. Bauman, A. J. Beams, Samuel S. Berger, Samuel L. Bernstein, Edmund E. Beard, Don D. Brannan, Edward M. Brickman, Lewis Chalfin, Herbert E. Christman, Frank H. Clark, Milton B. Cohen, Clyde L. Cummer, George H. Curtis, Nicholas D' Alessandro, Sr., James A. Dickson, Fred W. Dixon, Frank J. Doran, James R. Driver, I. H. Einsel, Robert L. Faulkner, Harold Feil, J. Edgar Fisher, George Edward Follansbee, Ralph J. Frackelton, A. N. Freed, Samuel O. Freedlander, Harold J. Friedman, Curtis F. Garvin, Wm. P. Garver, Samuel R. Gerber, Marion N. Gibbons, Joe I. Goodman, C. Lee Graber, Jerome Gross, Harry A. Gusman.

Russell L. Haden, John E. Hannibal, Charles L. Hartsock, H. J. Hartzell, John W. Houk, Hyman Jaffe, Thomas E. Jones, Benjamin S. Kline, Roy B. Metz, Myron Metzenbaum, Horace E. Mitchell, Paul M. Moore, Jr., John B. Morgan, Louis E. Papurt, Harry V. Paryzek, Clayton C. Perry, H. H. Pevaroff, Joseph C. Placak, Sr., Joseph C. Placak, Jr., Lawrence Pomeroy, Ursus V. Portmann, John E. Rauschkolb, Faith W. Reed, R. John F. Renshaw, S. L. Robbins, Ruth A. Robishaw, D. E. Rolf, J. McKinley Rossen, Vernon C. Rowland, A. G. Schlink, Henry A. Schlink, Roy W. Scott, Hans Seidemann, Harry Sneiderman, Gordon Stone, Robert M. Stecher.

J. J. Thomas, J. Warrick Thomas, Clifford V. Vogt, Ralph M. Watkins, Justin M. Waugh, Myron A. Weitz, R. J. Whitacre, Bessie G. Wiesstein, Theodore M. Wille, Theodore A. Willis, Zolton T. Wirtschafter, Victor F. Woldman, Harry E. Wolk, S. Yamshon, Anna M. Young, Walter J. Zeiter.

Columbus—John B. Alcorn, Richard I. Brashear, Andre Crotti, George M. Curtis, S. D. Edelman, Roswell S. Fidler, James M. Foley, Jonathan Forman, J. M. Gettrost, Walter H. Hamilton, George J. Heer, Zeph J. R. Hollenbeck, Franklin C. Hugenberger, W. D. Inglis, Ben R. Kirkendall, Albert B. Landrum, Louis Mark, Russel G. Means, Charles W. McGavran, Jay McLean, Louis J. Roth, Jack A. Rudolph, Robert H. Schoene, George P. Sims, E. von Haam, Thomas P. Wangler, John W. Wilce.

Dayton—Sterling H. Ashmun, Robert C. Austin, Ray H. Bechtell, E. E. Bohlender, C. E. Burgett, M. E. Coy, Fredericka Freytag, H. C. Hanning, William H. Hanning, H. Worley Kendell, Harold F. Koppe, Howard Lauer, J. W. Millette, Benedict Olch, Melvin Oosting, Everett W. Shank.

Toledo—A. A. Applebaum, George W. Bascom, Walter W. Beck, Albert L. Bershon, Bernard Botsch, A. A. Brindley, Martin W. Deithelm, Leo. P. Dolan, Fred M. Douglass, Emidio L. Gaspari, John Gardiner, Will Gardiner, Warren W. Green, Matthew Ginsberg, Robert F. Heatley, Thomas F. Heatley, Barney J. Hein, John F. Hillabrand, Harland F. Howe, William H. Jacobson, Philip Katz, Adelbert J. Kuehn, Louis A. Levison, Charles Lukens, K. C. McCarthy, James E. Miller, Louis A. Miller, Samuel A. Molle, Nelson Morris, Wallace Morton, John T. Murphy, E. A. Ockuly, C. J. A. Paule, Charles A. Philips, Thomas L. Ramsey, Lewis F. Smead, Bernard Steinberg, Irwin Stover, Ira B. Winger, Theodore Zbinden.

Youngstown—Edgar C. Baker, Morris H. Belmont, A. E. Brant, Wm. H. Bunn, L. George Coe, Wm. Dean Collier, Morris Deitchman, Paul J. Fuzy, J. Paul Harvey, Elmer E. Kirkwood, Joseph B. Kupec, John S. Lewis, Jr., Ralph R. Morrall, Vern A. Neel, Robert Edwin Odom, A. M. Rosenblum, Joseph Rosenfeld, John L. Scarnecchia, Samuel H. Sedwitz, Wm. M. Skipp, Walter King Stewart, Saul J. Tamarkin, Craig Wales.

Other Cities—C. G. Axline, Lancaster; Edwin H. Artman, Chillicothe; John W. Adrian, Lorain; R. C. Bane, Chillicothe; William V. Banning, Shreve; Cecil F. Barber, Felicity; W. H. Beery, Lima; Leonard A. Blum, Niles; J. Bolin, Norwood; R. W. Bradshaw, Oberlin; H. D. Chamberlain, McArthur; Robert Conard, Wilmington; T. H.

Copeland, Bedford; Richard L. Counts, Chillicothe; Floyd W. Craig, Coshocton; David Danenberg, Bridgeport; W. L. Davis, Martins Ferry; Joseph M. DeNardi, Lorain; L. F. Derfus, Salem; John S. Deyell, Ravenna; John C. Drake, Mt. Vernon; W. B. Faircloth, Zanesville; R. F. Fasoli, Brunswick; Ralph W. Faus, Wellington; Frank J. Fischer, Chagrin Falls; G. W. Flory, Eaton; John W. Franklin, Chillicothe.

Mabel E. Gardner, Middletown; Russell Gardner, Troy; J. R. Gersack, Springfield; Robert L. Gettman, Marion; Carl F. Goll, Hopedale; D. A. Gross, Hubbard; Leonard H. Harris, Elyria; W. G. Hartnett, Fostoria; Joseph N. Hebble, Springfield; Samuel Hindman, Breckville; Robert E. Hopkins, Coshocton; A. P. Hunt, Portsmouth; G. E. Huston, Lowell; Bertha M. Joseph, Martins Ferry; John M. Kidd, Galion; N. J. M. Klotz, Wadsworth; R. B. Krause, Lima; A. C. Lawrence, Crooksville; Paul J. Leahy, Tiffin; James F. Lee, Mt. Vernon; D. R. Lewis, Grove City; Lewis L. Liggett, St. Clairsville.

James R. McAuley, Perrysburg; Walter W. McKay, Warren; H. C. Messenger, Xenia; Harry W. Miller, Mt. Vernon; Howard H. Minor, Steubenville; Louis A. Mitchell, Newark; Hurston H. Morris, Portsmouth; C. F. Murbach, Archbold; M. S. Muskat, Marietta; Clyde W. Muter, Warren; Rienzi V. Myers, Mansfield.

Horatio T. Pease, Wadsworth; S. J. Podlewski, Steubenville; Edwards H. Porter, Tiffin; J. M. Pumphrey, Mt. Vernon; Dale E. Putnam, Westerville; Paul A. Reeder, Barnesville; Herman S. Rhu, Marion; M. H. Rosenblum, Steubenville; J. B. Sampsell, Van Wert; Clarence N. Sanders, Millfield; Cyril E. Savage, Lima; Warren C. Sawyer, Marion; Stanley C. Schiller, Mansfield; Rudolph G. Schmidt, Celina; Ferdinand F. Schwartz, Painesville; Louis H. Senteff, Chillicothe; Julius Shamansky, Mt. Vernon; S. J. Shapiro, Warren; John J. Shea, Coldwater; John Harold Smith. Sebring; Taylor Smith, Avon; Warde Byron Smith, Frankfort; Roy E. Smucker, Salem; Thomas F. Smyth, Lyons; F. H. Stoup, Barnesville; F. P. Sutherland, Martins Ferry.

Roger L. Tecklenberg, Lima; Homer B. Thomas, Gallipolis; Joseph O. Thomson, Oberlin; J. R. Tillotson, Lima; Ray M. Turner, Springfield; G. D. Underwood, Navarre; Anna B. Watson, New Athens; George N. Wenger. Massillon; David A. Wiener, Deshler; George W. Wilcoxon, Alliance; E. J. Willke, Maria Stein, R. H. Wilson, Martins Ferry; Ralph C. Wise, Mansfield; George A. Woodhouse, Pleasant Hill; R. D. Worden, Ravenna.

Appeals Court Rules Against A.M.A.

Announcement was made on June 15 that the United States Court of Appeals for the District of Columbia had affirmed the judgment of the lower court convicting the American Medical Association and the District of Columbia Medical Society, according to the June 20 issue of *The Journal of the American Medical Association.* In accordance with the instructions of the House of Delegates and the Board of Trustees, attorneys of the American Medical Association propose, in effect, to appeal to the Supreme Court of the United States from the judgment of conviction.

Diathermy Apparatus Must Be Registered Under F.C.C. Order

Physicians who own diathermy apparatus are immediately and directly affected by a recent order of the Federal Communications Commission, now in effect, which requires that "all possessors of appartus designed, constructed, or used for generating radio frequency energy for therapeutic purposes" must register each such device with the F.C.C.

This is described as a wartime security measure, and it follows a previous decision of the Office for Emergency Management, Defense Commission Board, that the government must have knowledge of all persons who possess apparatus equipped for the transmission of radio frequency energy. Diathermy machines, it is explained, not only interfere with radio reception, but they can be easily converted into short wave radio transmitters and thus may be used to furnish valuable information to the enemy.

Application for registering the diathermy apparatus must be made on forms which may be obtained either directly from the Federal Communications Commission, Washington, D.C., or, in Ohio, from the Sub-office Radio Inspection, FCC, 541 Old Post Office Bldg., Cleveland.

Any person who acquires diathermy apparatus in the future must make application for a certificate of registration within 15 days after obtaining the machine. If registered apparatus is transferred, sold, assigned, leased, lent, stolen, destroyed or otherwise removed from the possession of the registrant, the commission must be notified of the fact within five days and the name of the recipient of the apparatus must be given to the commission if it is known.

This order does not apply to sunlamps, infrared lamps, or ultra-violet ray devices. It covers only apparatus generating electromagnetic energy at any frequency between the limits of 10 kilocycles and 10,000 megacycles. Punishment for wilfully violating the order may be a fine of not more than $10,000 or imprisonment for not more than 10 years or both, and unregistered apparatus may be confiscated.

About 2,350,000 babies were born in the United States in 1940, the highest number since 1930, according to a report by the Bureau of the Census. The total was nearly 100,000 greater than in 1939, and the increase lifted the national birth rate from 17.3 to 18.0 live births per thousand of population. From a rate of 24.2 in 1921 the rate continuously declined to its present point, 16.5, in 1933.

Officers elected by the Association of American Physicians at its recent meeting in Atlantic City, include Dr. Joseph T. Wearn, Cleveland, who was named secretary.

Need for Medical Officers Acute, McNutt Tells House of Delegates of A.M.A.—Must Have 20,000 More By End of Year, He Says in Appeal to Profession

SPEAKING, as he said, "very bluntly," Paul V. McNutt, Chairman of the War Manpower Board, under whose jurisdiction the Procurement and Assignment Service falls, described the urgent need for immediate recruitment of thousands of Army medical officers to the House of Delegates of the American Medical Association at its meeting in Atlantic City on June 9. Governor McNutt said:

"Last night, gentlemen, I gave to this company a report on the serious situation that has arisen with reference to the recruitment of doctors, and I would like to make it clear at this time, as I tried to then, that there is nothing in what I had to say that was intended in any way as a criticism of the very splendid and vigorous cooperation which the leaders of your profession have given us. I wish I had the words to pay the tribute which I feel to the President of the A.M.A., Frank Lahey. He is a grand person, I love to work with him; we do business on the same style. As I told him last night, I hope that his professional duties—I know his sense of patriotism will—but I hope his professional duties will make it possible for him to come down and stay with us all the time, because we need him, and I think you need him there.

SAYS INTEREST LAGGING

"But to go back to the point of the recognition of the acute needs of the military forces and the serious health problems which summer may bring in some crowded industrial areas, I certainly would have been derelict in my duty had I not stated the case bluntly. We need 5,000 physicians, we need them imperatively by July 1, 1942. That is only three weeks away. There is at the moment no indication that the present type of organization will produce them. There is an apparent lack of interest on the part of your profession to volunteer. That lack of interest is in a large measure, I think, based upon the failure to drive home to the average physician the magnitude of the need.

"Those of us who served in the last war thought that we saw a big show. That was child's play compared to this one. When the Procurement and Assignment Service was set up it provided genuine and needed safeguards to protect the professional integrity and the scientific interests of physicians everywhere. In practice, those safeguards have apparently deterred recruitment. They enabled "business as usual" to get by a little longer.

"Your profession hasn't been alone in reluctance to face the facts. Business men have tried to protect inventories or establish commercial relationships, and in some bureaus in Washington, and in many states, in many counties, many towns, bureaucrats have tried to preserve jurisdictional lines; individuals have tried to preserve jobs and incomes from the threat of military service. Physicians, naturally, would be reluctant to give up lucrative practices for military service or risk losing a hard-won practice. But it is well to remember that other professions are not so fortunate as the medical profession is as a whole. Lawyers, teachers, business men, are entering the service as privates except in rare cases. Every competent member of the medical profession can be assured at least of a commission and a living wage. Not only that, but the Procurement and Assignment Service put the medical profession in the fortunate and preferred position of setting up its own machinery for the appraisal of the availability of service of each physician and for the allocation of its members.

Mr. McNutt's speech at the dinner session of the House of Delegates, June 8, was published in The Journal of the American Medical Association, June 20 issue, pages 605-607.

NEED IS FOR MANY AT ONCE

"When I say that approximately 20,000 more physicians are needed for the Army and Navy between June 1 and December 31, an average of 3,000 a month, you can begin to understand how far present recruitment arrangements have fallen below the needs, and add that 3,000 per month to the needs of allocation for civilian service, and the fact that there will be a tremendous personal readjustment in the medical profession may be driven home.

"State committees must perform in these next few months a task which will require rare skill and judgment on their part. But most of all, it will require courage. It will not be a popular thing these committees will have to do. They may have to speak harshly to many who were their own friends or even their own proteges, but if these committees will drive home to the members of your profession the character of this problem, I do not think they will meet with any serious opposition.

SAYS PRESENT PLAN CAN WORK

"The medical profession is second to none in patriotism. The Procurement and Assignment Service and the Roster of Scientific Personnel are now both a part of the War Man Power Commission. The data relating to physicians and their availability for war service are just now being catalogued. Those who have filled out the questionnaires will be called very rapidly to meet existing needs, but the returns from these questionnaires which were sent to physicians are not yet sufficient. We need a hundred per cent return in order that the total picture may be available when decisions are made. And let me say again, as I tried to say as well as I could last night, the **need is urgent!**

"The methods which your officers have recommended and have been set up in the Procurement and Assignment Service give so much more promise of fairness and equity than any other system which might have been resorted to that I want to see it work! And I give you my pledge that I will do anything in my power to help make it work.

FUTURE PROBLEMS

"Moreover, the success of this program will be reflected in the type of practice which the profession may be expected to resume after the war is over. In boom defense towns such as Radford, Virginia; Charlestown, Indiana; Mobile, Alabama; Rantoul, Sparta, and other areas, there is little hope that a doctor may count on a long and well established practice. There is money in those towns now, but their economy will certainly sag after the war. We hope it doesn't sag, but if we are frank with ourselves and if we really look at the situation, we think that it will sag. There is need, there is very definite need, for government assistance to provide clinical equipment, facilities for medical care and otherwise to help in bearing the capital costs of servicing these communities. There is a definite responsibility, however, to man those areas with thoroughly competent physicians. I am not talking politics and I am not talking social theory. I am talking only plain, hard facts when I say it will have to be done, on your basis I hope, but if not, on another basis."

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. Robert D. Mansfield, Canton; Dr. Robert F. Miller, Bellevue; Dr. John Halley, Vermilion; Dr. F. M. Sponseller, Amherst; Dr. Austin Belai, Millville; Dr. E. S. Jones, Painesville; Dr. Heber Johnson, Ironton; Dr. William S. Oliver, Pomeroy.

News Notes

Bellpoint—Dr. G. E. Robinson is the new president of the Delaware County Board of Health.

Cardington—Dr. Frank M. Hartsook has been named health commissioner of Morrow County.

Cleveland—Dr. J. C. Placak, president of the Cleveland Anti-Tuberculosis League, has been elected chairman of the board of regents of the American College of Chest Physicians.

Columbus—Dr. George P. Sims has been elected a Fellow of the American College of Radiology.

Findlay—The importance of preventive medicine was stressed by Dr. T. A. Spitler at a P.T.A. meeting.

Hamilton—Staff officers of Fort Hamilton hospital are: Dr. Merle Flenner, president; Dr. Daniel M. Skinner, vice-president; Dr. William F. Vinnedge, secretary.

Lorain—Dr. David Thomas told the story of "20th Century Progress in Medicine", at a meeting of the Rotary Club.

Mansfield—Dr. Orin A. Beatty, Glasgow, Ky., is the new director of the Richland County Tuberculosis Sanatorium, succeeding the late Dr. Lincoln Fisher.

New Philadelphia—Dr. John Srail, who resigned as medical director and superintendent of the Clark County Tuberculosis Sanatorium on May 15, has been appointed superintendent of the Tuscarawas County Tuberculosis Sanatorium, succeeding Dr. W. E. Hudson who resigned to return to private practice.

Niles—"Facts Learned in My Medical Practice", was the subject of a talk made by Dr. Maynard A. Buck at a meeting of the Rotary Club.

Ravenna—Drs. S. U. Sivon, P. L. Harris and R. D. Worden comprised a panel which gave medical advice on an "Information Please" program presented by the Kiwanis Club.

Salem—Dr. Guy E. Byers has been re-elected president of the Columbiana County Public Health League.

Wellston—The wonders of the "sulfa" drugs were described by Dr. John L. Frazier at a meeting of the Lions Club.

Youngstown—Dr. Edward J. McCormick, Toledo, President of the Ohio State Medical Association, was the principal speaker at the annual meeting of the Medical-Dental Bureau.

Zanesville—Speakers at a meeting sponsored by the Muskingum County Chapter of The National Foundation for Infantile Paralysis included Dr. Geraldine Crocker, Granville, health commissioner of Licking County, and Dr. D. W. Gudakunst, New York, medical director of the Foundation.

Applicants Totaling 353 Examined by State Medical Board in June: Questions Asked Medical School Graduates

THE semi-annual examinations of the State Medical Board at Columbus, June 16-19, were taken by 353 applicants, of whom 256 sought licenses to practice medicine and surgery.

There were 20 applicants for osteopathic licenses. Other applicants included: 6 chiropractors, 24 mechano-therapists, 20 chiropodists, 25 masseurs and 2 cosmetic therapists.

Of the 265 medical school graduates who took the examinations, 57 were from Western Reserve University School of Medicine; 78 Ohio State University College of Medicine; 70, University of Cincinnati College of Medicine, and 51 from out-of-state schools.

Results of the examination will be announced during a meeting of the State Medical Board in Columbus, July 20-21.

Questions asked those who took the medical and surgical examinations were as follows:

ANATOMY

1. Outline the sympathetic nervous system in the thoracic and abdominal cavities and give connection with the central nervous system.
2. Contrast the various regions of the spinal column. Give identifying features of vertebrae of each section.
3. Give histological structure of the mucosa in the various parts of the gastro-intestinal tract.
4. Give attachment and relations of the duodenum.
5. Describe the blood supply of the hand.

PHYSIOLOGY

1. Discuss the physiology of "shock".
2. Discuss lymph, its origin, increase or decrease of flow and its function.
3. What is meant by the term "plasma clearance"? What is its clinical significance?
4. Discuss the role of calcium in the body.
5. Give the physiology and clinical significance of "Cheyne-Stokes" respiration.
6. Describe the regulation of the production of pancreatic juice.
7. What is basal metabolism? Give its meaning, measurement and variations.
8. What is the physiological importance of the adrenal cortex?
9. Define: (a) circulation time (b) visual acuity (c) N. P. N. (d) clotting time (e) threshold stimulus.
10. Discuss the effects of high altitudes (e. g. in aviation) on respiration.

DIAGNOSIS

1. Give symptoms of acute optic nerve neuritis.
2. Differentiate obstruction of bowel due to acute ileus, mechanical and adhesive.
3. Define Picks disease.
4. Differentiate a dissecting aneurism of thoracic aorta.
5. Give joint symptoms due to allergy, metabolism and infection.
6. Give symptoms of lung abscess and unresolved pneumonia.
7. Define hoarseness and give three contributing causes.
8. Give four causes of vertigo. Of what importance is nystagmius?
9. Give causes of kidney bleeding.
10. Differentiate inguinal hernia, inguinal admitis and injury to Pouparts ligament.

CHEMISTRY

1. Define acetonuria. In what conditions does it occur.
2. Give treatment of poisoning from Hg Cl_2.
3. Differentiate organic and synthetic chemistry.
4. (a) Name the halogens and give their symbols. (b) What is HCL and how prepared?
5. (a) What is the source of indican? (b) Outline test for same.

MATERIA MEDICA & THERAPEUTICS

1. What are the therapeutic uses of chloral hydrate? Discuss its dosage and treatment of acute poisoning.
2. What are the symptoms and treatment of lead poisoning?
3. In coronary occlusion, what drugs are indicated? Give action and dose of each drug.
4. Discuss the therapeutics and toxicology of cinchophen.
5. Name, give action and dose of three drugs used to raise arterial pressure.
6. What is the difference between the therapeutic and poisonous dose of strychnine on the spinal cord?
7. Compare dried blood plasma with whole blood as a therapeutic agent. What drugs may be used to prevent infection in wounds?
8. What is heparin? In what conditions is its use beneficial?
9. What are the chief uses of atropine? What are the U.S.P. preparations and doses?
10. Write a prescription for rheumatic fever in an adult. **Do not sign your name.**

PRACTICE

1. Discuss the symptoms (a) early (b) late of acute bronchitis with illustrative prescription for cough in each stage.
2. Discuss the cause, symptoms and treatment of Adams-Stokes syndrome with complete block.
3. Give and describe in the order of their occurrence the usual objective signs of syphilis.
4. What supplementary foods should be added to milk in feeding during the first year of life and why.
5. Discuss the etiology, symptoms, possible complications and treatment of mumps.
6. Give the etiology, symptoms and treatment of erysipelas.
7. Discuss the causes of cardiac enlargement, objective signs and unfavorable terminations that may be expected.
8. Give the symptoms and course of multiple sclerosis.
9. Discuss Bell's Palsy, etiology, course and treatment.
10. Discuss paralysis agitans, etiology, age period of occurrence, symptoms, course and treatment.

PATHOLOGY, BACTERIOLOGY & HYGIENE

1. Give the laboratory procedures for recognizing gonorrhea in an infected individual and discuss the complications and sequelae that may occur.
2. Describe the life cycle of the Trichina Spiralis and from what sources does it infect human individuals.
3. Discuss the method of testing whether a patient is sensitive to antitoxins derived from the horse and how the sensitivity may be overcome.
4. Discuss the part that rats play in conveying disease to man.
5. Describe the pathologic changes in the development of a syphilitic aneurism of the aorta and indicate the possible termination.
6. What pathologic changes in the liver may follow partial obstruction of the common duct?
7. What vascular changes are found in individuals past middle life with persistent high blood pressure.
8. Discuss the pathology of carcinoma of the head of the pancreas and what secondary functional disturbances may result from a large growth in that area.
9. What pathology would you find at autopsy following mercury bichloride poisoning of one week's duration?
10. What is "athletes foot", give common sources of infection and means for prevention.

SURGERY

1. Discuss penetrating wounds of the abdomen, giving diagnosis and treatment.
2. Give the causes, symptoms and treatment of perinephritic abscess.
3. State the principles underlying the management of an intracapsular fracture of the femur at the hip joint.
4. Discuss the surgical treatment of pulmonary tuberculosis.
5. Give the symptoms, prognosis and treatment of Ludwig's Angina.
6. Discuss pulmonary embolism as a surgical complication.
7. Discuss the significance of vomiting after an operation for an appendiceal abscess.
8. A man sixty-five years old, who during the past two years has had difficulty in passing his urine, is seen because he is vomiting and slightly irrational; what examinations would you make? How would you treat him?
9. What is meant by the term "post-operative massive

atelectasis"? How is the condition recognized? How would you treat it?

10. Give the indications for transfusion of blood. Describe your method of choice.

OBSTETRICS

1. Discuss management of pregnancy complicated by cardiac decompensation.

2. Give differential diagnosis and treatment of acute salpingitis on right side.

3. Give diagnosis and treatment of incomplete abortion at the fourth month with infection.

4. Discuss the diagnosis and treatment of the important anemias of pregnancy.

5. Give diagnosis and treatment of pyelitis and nephritis complicating pregnancy.

Rates 50 cents per line, payable in advance. Minimum charge of $1.00 for each insertion. Price covers the cost of remailing answers. Forms close 16th of the month preceding publication.

A Tribute to the Woman's Auxiliary, Ohio State Medical Association

Recently, as president of the county medical society, I was extended the honor of being invited as guest to attend the monthly meeting of our local chapter of the Woman's Auxiliary to the Ohio State Medical Association. It was the occasion of a visit by the president of the State Woman's Auxiliary, Mrs. Dale Osborn of Cincinnati, and by the past president of the National Woman's Auxiliary, Mrs. V. E. Holcombe of Charleston, to the local chapter of the organization.

I can say with appreciation that my attendance at the meeting was whole-heartedly a revelation to me. I have never had the opportunity of a visit with a finer group of ladies in all my life, and it would do any physician a lot of good to attend one of these meetings. There was a refined atmosphere that was outstanding and appealing throughout the meeting. Why would it not be, when these ladies have been the choice of the individual members of the medical profession as their life companions?

The transactions at the meeting were earnest and businesslike, and there was an intense seriousness about the matters that came up before them. There were discussions relative to the weekly radio broadcasts to the public on health topics that are being given by members of the Auxiliary, aid to crippled children and the underprivileged children of the Fresh Air Camp, and other humanitarian projects. Only a women could think of and carry out these things in the fullness of the heart! So, give them the right of way!

In our county the members of the medical profession have encouraged the ladies to expand the usefulness and activities of the Auxiliary. It has proven a boon for the wives of the physicians as a social diversion. Are the ladies not fully entitled to it considering the exacting life of a doctor's wife? Furthermore, they come home from the meetings with words of praise for the graciousness of the other doctors' wives, and it serves as a strong factor in binding all the doctors' families (including the doctor himself) in friendliness and good will toward each other. Each year in December in our county we celebrate a "Ladies' Night" in the form of an annual banquet at which all the physicians and their wives attend, and we consider it quite an event in our local medical circles. The result of these gatherings is that we professional men enjoy about as whole-hearted professional magnanimity as will probably be found anywhere.

Relative to the radio health broadcasts put on by physicians' wives of the Auxiliary, these have a wholesome effect on the public and many women in the community look forward to these talks with interest, and frequently women patients will comment appreciatively of these programs.

In the matter of charitable acts by the Auxiliary in the community, these activities are bound to greatly increase the respect and regard of the community for the physicians and their families. And as time and experience reveal new avenues of charitable activities, the work of the Auxiliary will even more build up the good will of the public for the medical profession in the community.

It is altogether befitting that the ladies of the Auxiliary should become conscious of the outstanding position of their organization among the organized groups in the community, both civic and social. Why should they not be, when they guide the home and many of the contacts of their physician husbands with the public in the community. Nor will the medical profession find disappointment in this confidence bestowed upon them. Experience will prove that the physicians will do well to encourage the ladies in their various counties in the furtherance of the work of the Woman's Auxiliary.

Let us give the sign, "All clear ahead for the Woman's Auxiliary"!

—*C. G. Braunlin, M.D., President,*
Scioto County Hempstead Medical Society,
Portsmouth, Ohio.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Ruth Antoinette France, Sidney, and Captain Charles J. Deishley, Columbus; Miss Pauline Elizabeth Rogers and Dr. Robert J. Ferguson, Ashland; Miss Jeane Louise Myers and Dr. Joseph A. Geer, Toledo; Miss Laura Elizabeth Gardner, Montrose, Pa., and Dr. Huber Johnson, Ironton; Miss Oneta Fischer and Dr. N. Vernon Noble, St. Marys; Miss Mabel Sheward and Dr. Robert K. Scott, Columbus; Miss Helen Meyer and Dr. John Steinman, Cincinnati; Miss Wilma Pauline Dick and Dr. E. B. Agee, Jr., Cincinnati; Miss Mary Hope Wycoff and Lt. Joe Allen Browning, Cleveland; Miss Grace Patrick, Youngstown, and Dr. Myron S. Owen, Ravenna; Miss Thelma Martin, Chesapeake, and Dr. W. Roy Swango, Ironton; Miss Marian Dustman and Dr. Frederick Schellhase, Youngstown; Miss Lillian Isabella Younge, Dayton, and Lt. Frank Karl Urban, Cleveland.

Health Association Election

Officers re-elected at the recent annual meeting of the Ohio Public Health Association include: Dr. H. Kennon Dunham, Cincinnati, president; Dr. Charles A. Neal, Cincinnati, and Floyd A. Rowe, Cleveland, vice-presidents; Charles C. Stillman, Columbus, secretary; Charles C. Cook, Columbus, auditor; Carlton S. Dargusch, Columbus, counsel; Thomas H. Dickson, Columbus, treasurer, and Robert G. Paterson, Ph.D., Columbus, executive secretary.

Do You Know - - -

The annual oratorical contest of John Carroll University, Cleveland, was won by Edward J. McCormick, Jr., Toledo, a sophomore at that institution and a son of Dr. Edward J. McCormick, President of the Ohio State Medical Association. His topic was: "Is There a Relation Between a College Education and Freedom"?

* * *

New officers of the Board of Trustees of Ohio State University include Dr. Burrell Russell, New Philadelphia, chairman, and Dr. C. J. Altmaier, Marion, vice-chairman.

* * *

Dr. Clyde L. Cummer, chairman of the Council of Scientific Assembly of the American Medical Association and a former president of the Ohio State Medical Association, was the recipient of the Cleveland Academy of Medicine's distinguished service award for 1942.

* * *

For 56 years a surgeon in Cincinnati; for 53 years a member of the staff of Christ Hospital and today the only surviving member of the original staff of 18 physicians—that's the record of Dr. John Chadwick Oliver, professor emeritus of surgery, University of Cincinnati College of Medicine, who celebrated his 80th birthday on May 7.

* * *

There have been 80 deaths due to infantile paralysis in the last 25 years in Hamilton County, according to a study report made by the medical committee of the Hamilton County Chapter of the National Foundation for Infantile Paralysis.

* * *

Blood tests for syphilis were received by about 25 per cent of couples marrying in the United States during the fiscal year 1941. This estimate by the U. S. Public Health Service, is made from a tabulation of the results of premarital tests reported from 20 of the 26 states having laws requiring serologic examination for syphilis of couples applying for marriage licenses. Out of 853,220 examinations reported, 12,954 were positive for syphilis.

* * *

The average age at death of physicians in the United States in 1941 was 65.9 as compared with 66.3 in the previous year, according to the June 13, issue of *The Journal of the American Medical Association.* Last year 3,527 obituaries were published in *The Journal.* Heart disease was again the leading cause of death. Coronary trombosis and occlusion lead the list with 1,034 deaths. Other coronary diseases totaled 119. Other diseases of the heart and circulatory system accounted for 781 deaths.

Members of the original Lakeside Hospital Unit of World War I held a reunion at Cleveland on May 23, celebrating the 25th anniversary of the arrival of the unit in France. Dr. H. D. Piercy was chairman of the rally. Dr. Howard T. Karsner was toastmaster, and speakers included Dr. George W. Crile, organizer of the unit, and Dr. William E. Lower, commanding officer during part of the 23 months of its service.

* * *

Dr. Frank F. Ridings, Greenville dentist, has been reappointed a member of the Ohio Public Health Council, for a term beginning July 1 and ending June 30, 1948.

* * *

New officers of the Ohio State Eclectic Medical Society include: Dr. G. W. DeMuth, Sherwood, president; Dr. J. F. Conrad, Magnetic Springs, president-elect; Dr. M. B. Rice, Pandora, vice-president; Dr. M. R. Bixel, Bluffton, secretary; Dr. F. S. Thomas, Marion, treasurer.

* * *

According to a recent report of the Bureau of the Census, births of more than one-third of Ohio's natives are not registered. Of the 6,158,300 persons now living who were born in Ohio, the births of 2,790,000 were not recorded. Census Director J. C. Capt set the national unregistered birth figure at 54,000,000.

* * *

Five of the seven Tuscarawas County physicians who have practiced medicine 50 years or more attended a recent meeting of the Tuscarawas County Medical Society. They were: Dr. E. D. Moore, Dr. C. D. Kurtz and Dr. Joseph Blickensderfer, New Philadelphia; Dr. J. M. McCollam, Uhrichsville; and Dr. George Kistler, Newcomerstown.

* * *

New officers of the Ohio Society of Pathologists are: Dr. Richard S. Austin, Cincinnati, president; Dr. Frank Hodges, Huntington, W. Va., president-elect; Dr. A. H. Schade, Toledo, secretary-treasurer, and Dr. Harry L. Reinhart, Columbus, counsellor to the American Society of Clinical Pathologists.

* * *

Speakers at the meeting of the Central Conference Zone, American Society for the Hard of Hearing, June 28, at Cincinnati, included Dr. Russel G. Means, Columbus; Dr. Fred W. Dixon, Cleveland; Dr. Carl Wilzbach, Dr. Robert E. Howard and Dr. Samuel Seltz, Cincinnati.

* * *

Federal Security Administrator McNutt has asked the U. S. Budget Bureau for $3,000,000 to establish nursery centers for children of mothers working in war industries.

Commission Disbursed $3,322,792 for Medical Services in 1941; Number of Claims Filed Sets All-Time Record

According to a recent report of E. I. Evans, chief actuary, the State Industrial Commission during 1941 disbursed $3,322,792.06 for medical services (including a relatively small amount for dental services); $1,258,095.36 for hospital care and nursing; $122,290.95 for funeral expenses, and $73,998.89 for court costs, a total of $4,777,177.26. These amounts include payments covering injuries to private and public employees, as well as similar costs on occupational disease claims, and are in addition to death awards and compensation to injured employees.

Comparative figures for 1940 were as follows: $2,795,522.82 for medical services; $1,157,274.49 for hospital care and nursing; $134,495.04 for funeral expenses, and $77,270.30 for court costs, a total of $4,164,562.65.

RECORD NUMBER OF CLAIMS

The number of claims filed during 1941 was 286,010, a record for the 30-year history of the Workmen's Compensation Fund. There were 255,094 claims filed in 1929—the previous peak year. Claims filed in 1940 totaled 212,033. The total for 1932 was 130,099.

"Medical Only" claims, involving payment for physicians' services but no compensation for loss of time by the claimant, numbered 227,386 during 1941, or 79.5 per cent of all claims filed, compared with 77.7 per cent in 1940. Average expense of "medical only" claims decreased from $8.30 in 1940 to $8.03 in 1941.

BASIC RATES DECREASED

Because of a very favorable experience during 1941, it has been possible for the State Industrial Commission to reduce the general level of workmen's compensation basic rates 10.3 per cent, effective July 1, 1942. This is the greatest reductiin that has been made during the last seven consecutive annual rate reductions, and results in a total decrease of 28 per cent below the rates of 1935. It is estimated in the actuary's report that the rate reduction will result in $2,600,000 lower premium cost to employers for the next year, provided industrial activity is similar to 1941.

Pointing out that the war effort acceleration of industrial activity, with accompanying increased wage levels and overtime has resulted in greater increase in payrolls and premiums than in claim cost obligations, Mr. Evans comments that "the greater opportunity for gainful employment alleviates the need for compensation for loss of earnings in many cases where compensation would otherwise continue".

The actuary's analysis of the status of the state insurance fund and experiences for 1941 reads in part as follows:

STATUS OF FUND

"The surplus of the Fund during 1941 increased $2,720,060.59 resulting in a surplus at the close of the year amounting to $7,281,079.92. (Table 1.) The statutory surplus also increased from $3,102,971.68 to $3,410,199.27. The increase of $307,227.59 in the statutory surplus was due to the fact that no heavy catastrophe losses occurred during the year.

The total assets for the year increased from $70,726,547.28 to $84,609,864.52, an increase of $13,883,317.24. An addition of $7,121,425.93 has been made in the amount of reserve set aside for future payment of benefits on claims occurring prior to 1942, thus resulting in the claim reserves increasing during the year from $58,440,793.13 to $65,562,219.06. The more intensive activity of industry, involving the coverage of a larger number of employers and employees, served to increase the assets and claim reserves.

"The five year comparison of the premium income and losses, (Table 2) discloses the marked increase in earned premium for the year 1941 while the net losses have shown a much lower ratio of increase. The premium increase in 1941 over 1940 was $7,198,725 or 40 per cent, while net losses increased only $3,270,418 or 17 per cent.

"The 82 per cent ratio of losses to premium is the lowest loss ratio for the past five years and is the most favorable ratio experienced by the Fund for many years.

CLAIM COST

"The average cost per claim on accident claims showed an increase of 5 per cent during 1941. Compensation cost increased 2 per cent while medical cost increased 4 per cent.

"While the average claim cost was increased the increase in the wage level, which in turn increases payroll and premium income, was more than sufficient to offset the increase in claim cost.

OCCUPATIONAL DISEASES

"The occupational disease experience continued to show a substantial increase in claim costs, this increase being particularly pronounced in industries where dust diseases are prevalent. This has required a revision upward in the occupational disease rates in 76 industry classifications, while 40 classifications received reductions and in 270 classifications the occupational disease rates were not changed.

(*Continued on page 696*)

TABLE 1

OHIO STATE INSURANCE FUND

(Workmen's Compensation)

FINANCIAL STATEMENT AS OF DECEMBER 31, 1941
*PRIVATE FUND

Assets

BONDS AT AMORTIZED VALUES			$70,217,488.33
State Treasurer's Bond Balance	$72,305,902.23		
*Less Public Fund	4,224,084.83		
Par Value of bonds		$68,081,817.40	
Amortized value over par		2,135,670.93	
All bonds are in the custody of the State Treasurer and consist of obligations of the Federal Government and Ohio taxing districts.			
CASH IN BANKS			10,574,525.80
Certificates of deposit drawing interest	$ 4,091,746.12		
Checking account without interest	7,138,868.13		
State Treasurer's Balance		$11,230,614.25	
*Less Public Fund		656,088.45	
All deposits are in Ohio banks and are protected by depository bonds held by the State Treasurer.			
PREMIUMS IN COURSE OF COLLECTION No premiums more than 60 days old are included.			3,163,097.31
INTEREST ACCRUED			654,753.08
TOTAL ASSETS			$84,609,864.52

*The Ohio State Insurance Fund is separated by statute into two funds. The Private Fund covers employers in private industry, while the Public Fund covers the State, municipalities and other taxing districts.

Liabilities

RESERVE OR COMPENSATION AND MEDICAL BENEFITS To cover future payments on claims where the inception of the injury or disease was prior to January 1, 1942. Compensation and other benefits extend over periods of time and, in some cases, during the remainder of the life of a claimant.	$65,562,219.06
OUTSTANDING WARRANTS Warrants issued for claim benefits which had not been presented for payment to the State Treasurer by December 31, 1941.	251,463.29
UNEARNED PREMIUM Advance premium paid for coverage beyond December 31, 1941.	6,743,266.64
SECURITY FLUCTUATION RESERVE To provide for possible depreciation of bond investments.	1,361,636,34
STATUTORY SURPLUS To provide for catastrophic losses and other statutory contingencies. (No reinsurance is carried to cover catastrophe hazard.)	3,410,199.27
SURPLUS To provide for general industrial trends and non-statutory contingencies.	7,281,079.92
TOTAL LIABILITIES AND SURPLUS	$84,609,864.52

TABLE 2

COMPARATIVE INCOME, LOSSES AND EXPENSE

Year	Earned Premium	Losses Incurred	Minus Investment Earnings	Net Losses Incurred	Percent Losses to Premium	Expense
1937	$20,531,783	$21,350,784	$1,336,726	$20,014,058	97.5	$147,863
1938	15,004,859	15,861,386	1,762,301	14,099,085	94.0	145,130
1939	16,214,045	15,930,752	1,929,504	14,001,248	86.4	138,747
1940	18,124,819	19,380,332	1,881,310	17,499,022	96.5	143,935
1941	25,323,544	22,650,750	1,877,703	20,773,047	82.0	154,573

"The number of classifications under the various occupational disease rates are as follows:

Rate	No. of Classifications	Rate	No. of Classifications
$.02	212	$.20	13
.03	47	.30	13
.05	26	.40	2
.10	37	.50	5
.15	29	.60	2

SUMMARY OF BASIC RATE REVISION

"The revision, after giving effect to such increases as have been made in occupational disease rates, carries a reduction of 10.3 per cent in the general level of the basic rates. This revision is effective as to all semi-annual renewals, reinstatements or new business beginning on and after July 1, 1942.

"All classifications have not received reductions. There were a few classifications where increased rates were necessary due to adverse experience over the last five calendar years, while there were a number of other classifications in which the rate remained unchanged. The amount of the reduction varies in those classifications receiving reductions dependent upon the extent of the favorable trend of experience. The result of the revision is as follows:

	Number of Classifications	Percent
Rates decreased	225	58.3
Rates unchanged	150	38.9
Rates increased	11	2.8
	386	100.0

Included in the report are the following interesting figures and comments on the 30-year record of the State Industrial Commission:

On March 1, 1942, the Ohio State Insurance Fund reached its 30th anniversary as a state-operated workmen's compensation carrier for Ohio employers.

"For the first year and ten months the Fund operated in competition with private insurance companies and for the last 28 years has been operated as an exclusive state fund, in that private insurance companies have been prohibited from writing workmen's compensation insurance in Ohio.

"The record as to the accomplishments of the Fund from March 1, 1912, to December 31, 1941, is as follows:

Employers insured	157,445	(a)
Premium collected	$356,138,421	
Benefits disbursed	317,289,463	
Interest collected	46,722,015	(b)
Claims filed	4,912,022	

(a) Number of employers insured at some period or continuously over the 30 years.

(b) Interest earned on Fund investments used to pay benefits, thus obviating the necessity for premium in like amount.

RECENT YEARS GROWTH

Year	Employers Insured	New Claims Filed	Total Assets
1929	47,107	255,094	$57,343,449
1933	42,824	131,145	40,167,624
1937	50,058	237,125	57,933,054
1940	61,490	212,033	75,099,482
1941	64,547	286,010	89,585,744

"The volume of the Fund in coverage, claims and assets diminished greatly from 1929 to 1933 due to the depression in industry. Since 1933 the Fund has shown a very rapid growth to an extent which has far surpassed the pre-depression level, the year 1941 having exceeded all former records.

"The number of employers actively insured has been greatly expanded in recent years as the result of intensive effort to require all employers of three or more employees to insure.

"The number of new claims filed follows rather closely the intensity of industrial activity, while the total assets have increased at a greater ratio than claims filed as the assets are required to be not only ample to meet the increasing claims but also to provide for the increased level of benefits."

Osteopathic Amendment Defeated

A proposal to make osteopaths eligible for commissions in the Medical Corps of the United State Army was rejected by the House of Representatives during consideration of S. 2025, which readjusted the pay and allowances of personnel of the Army, Navy and Marine Corps, Coast Guard, Coast and Geodetic Surgery and Public Health Service. When this bill was considered on the floor of the House, Representative Costello, California, offered an amendment to the section of the bill pertaining to the appointment of commissioned officers in the Army, as follows: "Provided, That nothing in this section shall preclude the appointment of commissioned officers for service in the Medical Corps of the Army of the United States made in part from among graduates of reputable schools of osteopathy, who are licensed or eligible for license under state law to practice medicine, or osteopathy, as the case may be, and who are otherwise qualified under such regulations as the President may prescribe." The amendment was rejected.

Columbus—Dr. Jonathan Forman discussed "The Importance of Gardens in Good Nutrition", at the annual convention of the Ohio Association of Garden Clubs.

WAR NOTES

The War Department has recently authorized activation of the following hospital units: 6th General, Massachusetts General Hospital, Boston; 20th General, University of Pennsylvania; 30th General, University of California; 38th General, Jefferson Medical College; 45th General, University of Virginia; 105th General, Harvard University; 118th General, Johns Hopkins University Hospital; 142nd General, University of Maryland Hospital; and 38th Evacuation, Fort Bragg, N. C. These hospitals will give an additional 7,600 beds to army medical service.

* * *

Among Ohio physicians who are listed in newspaper reports as being with American forces in Australia are Maj. John H. Marshall, Findlay, and Lt. T. F. McAllister, Coshocton.

* * *

According to Cincinnati newspaper dispatches, Dr. Victor H. Haas, formerly of that city, who was on a public health assignment in Burma has safely reached Delhi, India. Dr. Haas was in Burma on a U.S. Public Health Service Assignment, but the medical group with which he was working was absorbed by the Chinese Army under the command of the American General Stilwell, and Dr. Haas was commissioned a lieutenant colonel in the medical crops.

* * *

A sound slide film showing the integration of Civilian Defense medical activities with those of other air raid and disaster protective services has been produced by the Medical Division of the Office of Civilian Defense. It shows a Control Center and its equipment and operation; the work of a Casualty Station and a First Aid Post; a Medical Supply Depot; plans for a Decontamination Station; and other important features of Emergency Medical Service.

* * *

Members of the Lawrence County Medical Society were recently hosts at a farewell dinner given in honor of Dr. G. G. Hunter and Dr. Ray Swango, two of their colleagues who have entered military service.

* * *

Add medico-military ironies: Capt. Fleek Miller, Newark, started home on furlough recently from his post at Fort Myer, Va. En route his tires expired from natural causes. It was impossible to obtain replacements, so he sold his car and finished the trip by train.

A new field ambulance capable of carrying 21 soldiers in comfort at speeds up to 50 miles an hour and a trailer-type sterilizing unit which can be used for purposes of delousing or for sterilizing surgical equipment were included in the many new devices exhibited by the Army Medical Corps for the first time at the American Medical Association's meeting in Atlantic City.

* * *

A unique and patriotic method of clearing up delinquent accounts has been hit upon by Dr. W. Burnett Weaver, Miamisburg. He has agreed to write "Paid" on all bills over a certain age if the patients will purchase war bonds or stamps in an amount equal to the money they owe him.

* * *

Action for facilitating the naturalization of noncitizens serving in the Army is outlined in War Department Circular Letter No. 120 to commanding officers. Honorable service for at least three months is required except in the cases of applicants scheduled to depart for overseas srvice.

* * *

A new school devoted entirely to the training of medical administrative corps officers was opened recently at Camp Barkeley, Texas, under the command of Brig. Gen. Roy C. Hefflebower. This will supplement similar training given at Carlisle Barracks, Pa., and relieve the overcrowded conditions there.

* * *

Among Ohio physicians who are presumed to be prisoners of the Japanese on Corregidor are Major Calvin G. Jackson, Kenton, and Capt. William Waters, West Lafayette, according to press reports.

* * *

Another of the Cleveland physicians who are army medical officers "down under," Maj. Roger Egeberg, recently spoke over the shortwave radio to friends and family at home. Reception in Cleveland was said to be good and furnished a thrill to those who heard him.

* * *

Medical Specialists' Unit No. 44, Navy Medical Reserve Corps, has been organized at the Cleveland Clinic with the following personnel: Dr. Fay LeFevre, Dr. H. S. Van Ordstrand, Dr. Harold E. Harris, Dr. Robert Hughes, and Dr. F. L. Shively, Jr. This is the second such unit to be organized at the Clinic, the first having been ordered to active duty several months ago.

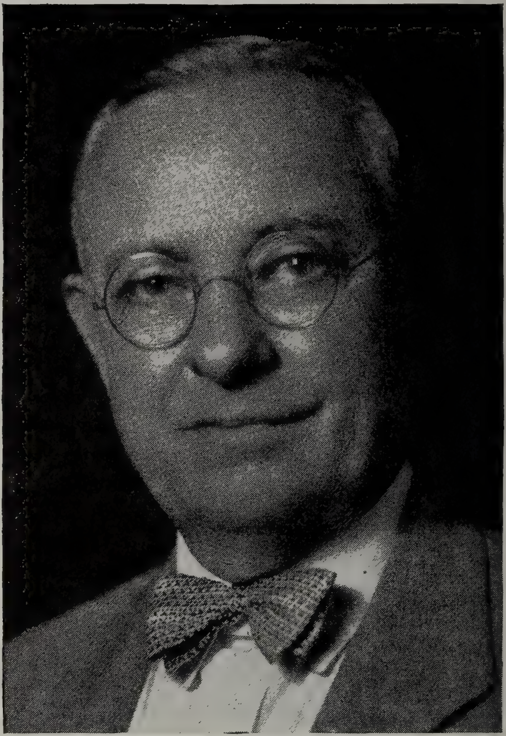
In Memoriam

JOHN B. ALCORN, M.D., Columbus; University of Louisville School of Medicine, 1894; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association, died June 16 of injuries received when struck by a trolley bus. Dr. Alcorn had practiced in Columbus since 1910, specializing in eye, ear, nose, and throat. He was emeritus assistant professor of ophthalmology at Ohio State University College of Medicine. Before 1910 he was located in Gallipolis, where he served as health officer. His death brought to an end many years of active interest in medical organization. In 1937 he became president of the Ohio State Medical Association, having been named president-elect at the 1936 annual session in Cleveland.

In 1927 Dr. Alcorn was president of the Columbus Academy of Medicine, and from 1922 through 1935 he served as delegate from Franklin County to the House of Delegates of the State Association. He was alternate delegate to the American Medical Association from Ohio in 1938 and 1939, and in 1940, 1941, and 1942 he served as delegate. He had just returned from the Atlantic City session of the A.M.A. a few days before his fatal accident. Before moving to Columbus he had served as president and secretary of the Gallia County Medical Society.

Dr. Alcorn was a first lieutenant in the Army Medical Corps during the Spanish-American War and saw active service in Cuba. Retaining a reserve commission, he was again called to active duty during the Mexican border trouble in 1917.

Dr. Alcorn took post-graduate study at the Manhattan Eye, Ear, Nose, and Throat Hospital, New York, and later in the hospitals of London, Paris, and Vienna. He belonged to Sigma Nu fraternity, was past commander of the Knights Templar in Gallipolis, and belonged to the Knights of Pythias, the Fraternal Order of Elks, and the Kiwanis Club. His widow, a daughter, a son, three brothers, a sister, and several grandchildren survive.



JOHN B. ALCORN, M.D.

Raymond Malcolm Carmichael, M.D., Maysville, Ky.; University of Cincinnati College of Medicine, 1936; aged 34, member of the Kentucky State Medical Association and Fellow of the American Medical Association, died May 27. His practice and his professional acquaintance extended into the southern section of Ohio. His widow and his mother survive.

James Fife Fisher, M.D., Sabina; Starling Medical College, Columbus, 1900; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association, died June 4. He had practiced in Sabina for 38 years. Dr. Fisher was also active in community affairs, being president of the Sabina Building and Loan Association and a member of the Sabina Masonic Lodge. His widow and a son survive.

Joseph Charles Gallagher, M.D., Rossford; Washington University School of Medicine, St. Louis, 1901; aged 62; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 3. A native of Nebraska, Dr. Gallagher was widely known in Toledo and northeastern Ohio. He was a member of the Knights of Columbus. He is survived by his widow, a sister, one daughter, and two sons, one of whom is a medical student at his father's school and the other of whom is a resident in St. Vincent's Hospital, Toledo.

James Pogue Gibson, M.D., Lakewood; St. Louis College of Physicians and Surgeons, 1900; aged 65; former member of the Ohio State Medical Association and of the American Medical Association; died May 23. Dr. Gibson retired from active practice in 1940 and moved to Lakewood from Kenton, where he had practiced for a number of years. He had also practiced in Roundhead, near Kenton, in Mariemont, a Cincinnati suburb, and in Indiana. He was a native of Kentucky. Survivors include the widow, three daughters, three sons, a sister, and three brothers.

Charles Harvey Hay, M.D., Cleveland; Western Reserve University School of Medicine, 1901; aged 69; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 15. Dr. Hay held a bachelor's degree from Wooster College. He had practiced in Cleveland 41 years and was surgeon for the Cleveland Christian home for 36 years. He was also on the staffs of Lakeside and Lutheran Hospitals, Cleveland. Dr. Hay was a diplomate of the American Board of Otolaryngology and a Fellow of the American College of Surgeons. His widow, two brothers, and two sisters survive.

Charles L. Ireland, M.D., Columbus; Pulte Medical College, Cleveland, 1898; aged 70; member of the Ohio State Medical Association and the American Medical Association; died June 10. Moving to Columbus from Fredericktown 44 years ago, he practiced there since except when he was in military service. He was a pioneer in the field of roentgenology, and during the first World War he served as chief of physical therapy at Walter Reed Hospital, Washington. He was also the author of a widely used textbook on physical therapy. Dr. Ireland held membership in the Masonic order and in the American Legion. His widow survives.

Alfred Walter Jones, M.D., Akron; Queen's University Faculty of Medicine, Kingston, Ont., 1896; aged 70; member of the Ohio State Medical Association and the American Medical Association; died May 19. A native of Surrey, England, Dr. Jones had practiced in Akron since 1900. He served as secretary of the Summit County Medical Society one year, and was a 32nd degree Mason and a Knight Templar. His wife, a daughter, three brothers, and two sisters survive.

Lynn Murray Jones, M.D., Dayton; Ohio Medical University, Columbus, 1898; aged 72; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 3. A native of Missouri, Dr. Jones spent his youth in Medway, Ohio. He was first in general practice in Dayton and later specialized in radiology, being credited with having used the first X-ray apparatus in that city. He was a member of the American Radiological Society. Dr. Jones was a Knight Templar and a member of the Dayton Bicycle Club. He is survived by his wife, two brothers, and a sister.

Edward Melchers, M.D., Toledo; Medical College of Ohio, Cincinnati, 1878; aged 86; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 18. After a long practice as a dermatologist, Dr. Melchers retired 15 years ago. He had taken post-graduate study in London, Vienna, and Strassburg, and he held membership in the British Medical Association. Survivors include his wife, a son, and a daughter.

David Hill McCall, M.D., Otway; University of Louisville School of Medicine, 1917; aged 52; died May 29. Dr. McCall practiced in Portsmouth before moving to Otway three years ago. He served as lieutenant commander on the U.S.S. Houston in World War I. After studying pharmacy at Ohio Northern University, he took his premedical course at Ohio State University. He is survived by a daughter, two sons, his mother, and two sisters and a brother.

P. Henry O'Hara, M.D., New Paris; Eclectic Medical College, Cincinnati, 1907; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 12. A native of Preble County, Dr. O'Hara recently retired to his New Paris farm after practicing in Dayton for 20 years. He also had maintained an office in Lewisburg. He is survived by his widow, two daughters, and a son.

Clarke Campbell Patton, M.D., Ashland; University of Wooster Medical Department, Cleveland, 1910; aged 59; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 11. Dr. Patton was a former president of the Ashland County Medical Society. During World War I he was a first lieutenant in the Army Medical Corps and served at base hospitals in France. He was one time resident pathologist at Cleveland City Hospital and later was assistant pathologist and bacteriologist at the University of South Dakota. His wife and four children survive.

Silas B. Post, M.D., formerly of Canton; Jefferson Medical College, Philadelphia, 1882; aged 84; died April 28. Dr. Post retired from practice 20 years ago and moved to Westfield, N. Y.

John Henry Ramey, M.D., Rock Camp; Miami Medical College, Cincinnati, 1897; aged 70; former member of the Ohio State Medical Association and the American Medical Association; died May 28. Dr. Ramey had practiced throughout Lawrence County since graduating from medical school, maintaining offices early in his career with his father, the late Dr. Miles E. Ramey. He was also active in civic and political affairs of his community and at the time of his death was president of the Lawrence County Board of Education. He is survived by his widow, one son, Dr. Ralph E. Ramey, of Columbus, a daughter, a brother, and five stepsons.

Charles E. Stadler, M.D., Lima; Eclectic Medical College, Cincinnati, 1896; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died May 20. Dr. Stadler retired from active practice eight years ago. He had practiced in Lima since 1913 and in Cairo for 17 years previously. He was a 32nd degree Mason and a Knight Templar and member of the Scottish Rite. He is survived by his widow, a daughter, two sons, and two brothers.

Frederic Moses Stanton, M.D., Columbus; Ohio State University College of Medicine, 1915; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 22. Dr. Stanton was graduated from Ohio State University with a bachelor's degree in chemistry in 1904, and for several years he worked as an industrial chemist. He also taught chemistry for a time at the Carnegie Institute of Technology. Dr. Stanton was a member of Sigma Xi, scientific honorary fraternity, and belonged also to the Knights Templar and the Shrine. He had practiced in Columbus since 1916. He is survived by a son and two daughters.

Joseph Edward Stephan, M.D., Mt. Healthy; Medical College of Ohio, Cincinnati, 1892; aged 74; died May 27. Retired from active practice since 1936, Dr. Stephan was a veteran of World War I, having served in the medical corps. He was later a physician to Veterans' Administration Facilities in Maine and Indiana. He was a 32nd degree Mason. Survivors include his wife, three daughters, and two sisters.

William Lewis Towns, M.D., Columbus; Starling Medical College, Columbus, 1896; aged 73; former member of the Ohio State Medical Association and the American Medical Association; died June 15. A native of Columbus, Dr. Towns practiced there for 48 years. He was active in the affairs of the Odd Fellows. Survivors include his wife, a brother, and a stepdaughter.

Frederick Smith Waterbury, M.D., Lakeview; Hospital College of Medicine, Louisville, 1896; aged 77; died May 9. Dr. Waterbury had practiced in New York City before coming to Logan County 35 years ago. He is survived by a sister.

Lester L. Williams, M.D., Mt. Vernon; Jefferson Medical College, Philadelphia, 1882; aged 87; died June 2.

Charles Edward Windeler, M.D., Chicago; Medical College of Ohio, Cincinnati, 1900; aged 64; died May 9. Retired from practice, Dr. Windeler was a native of Cincinnati and is survived by two brothers, both of that city, besides his widow.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

An all-day meeting of the Adams County Medical Society was held at the Hotel Hester, Manchester, on June 17. At the morning session Dr. Sam Clark spoke on legislative matters, Dr. S. J. Ellison, West Union, delegate, reported on the State Meeting, Dr. R. B. Ellison, West Union, discussed "The Importance of X-ray in General Practice," and Dr. W. L. Faul, Jr., Georgetown, also read a paper. Speakers at the afternoon session were Dr. J. E. Pirrung and Dr. I. H. Clayborn, Cincinnati. Dr. Clayborn's topic was: "Hay Fever—Its Cause and Treatment".—O. T. Sproull, M.D., secretary.

BUTLER

Dr. Mark Millikin, Hamilton, was honored by his colleagues in the Butler County Medical Society, at a testimonial dinner, May 27, at the Elks Country Club, Hamilton, in recognition of the celebration of his fiftieth year in the practice of medicine. Dr. W. E. Griffith, secretary-emeritus of the society, read a paper paying tribute to Dr. Millikin. Dr. Martin H. Fischer, professor of physiology, University of Cincinnati College of Medicine, then saluted Dr. Millikin, lauding him for his accomplishments not only as a physician, but as a "teacher, soldier, councillor and philosopher." A handsome gold watch was presented to Dr. Millikin from the society as a token of its appreciation and esteem for his contribution to medicine and surgery in the past half century. In responding, the honored guest attributed "what you please to call my success, to the lucky circumstances which placed me in a golden age with unusual opportunities for independent thought and action, and the stimulating inventions and developments which have occurred".

Among the special guests at the dinner were Dr. Demetrius Staneft, Chicago, and Dr. N. A. Hamilton, Franklin.

CLERMONT

Members of the Clermont County Medical Society were guests of Drs. Coleman and Roberts at the home of Dr. Coleman, Loveland, June 17. The guest speaker was Dr. Em. McKee German, assistant professor of pathology, University of Cincinnati College of Medicine, who told of some of his experiences in South America, where he spent four months last year as a lecturer at the University of Colombia, Bogota, under the auspices of the Cultural Relations Division of the Department of State. Dr. German also showed a number of interesting movies which he had taken on his trip.—J. M. Coleman, M.D., secretary.

CLINTON

The program for a meeting of the Clinton County Medical Society, June 2, at the General Denver Hotel, Wilmington, consisted of a roundtable discussion of obstetrical complications and case reports.—James E. Rose, M.D., secretary.

HIGHLAND

Dr. H. M. Clodfelter, Columbus, spoke on "Heart Disease in the Home", at a luncheon meeting of the Highland County Medical Society, June 3, at the Hotel Parker, Hillsboro.

Members of the Woman's Auxiliary met at the same time at the Highland House, Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MIAMI

Dr. Worley Kendell, Dayton, spoke on "Fever Therapy", at a luncheon meeting of the Woman's Auxiliary to the Miami County Medical Society, May 15, at the West Milton Inn.—News clipping.

MONTGOMERY

The Annual Meeting of the Montgomery County Medical Society was held at the Dayton Country Club, June 5. There was a golf tournament in the afternoon. Guest speaker at the dinner was Dr. Walter C. Alvarez, Rochester, Minn.—E. McCall Smith, M.D., president.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

HANCOCK

Three more Findlay physicians about to enter military service were honored at a dinner meeting of the Hancock County Medical Society, June 2, at the Findlay Country Club. The honored guests were Major B. F. Mowry, M.C., U. S. Army, who reported for active duty at Patterson Field, Dayton on June 8, and Drs. Walter F. Galbreath and R. S. Rilling, who have applied for commissions. Traveling bags were presented the three men on behalf of the society by Dr. M. K. Marshall, secretary.—News clipping.

MARION

Dr. Richard Morgan has been chosen treasurer of the Marion County Academy of Medicine succeeding Dr. Clovis J. Altmaier, who is now a lieutenant in the Medical Corps of the U. S. Army.—News clipping.

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Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

Harold Hartley, editor of the *Toledo Times*, spoke on "Civilian Defense", at a meeting of the Toledo Academy of Medicine, June 5. Physicians in the Civilian Defense organization were presented with their credentials—Bulletin.

New officers of the Woman's Auxiliary are: Mrs. Frank Morley, president; Mrs. Paul Holmes, president-elect; Mrs. Clarence Hufford, vice-president; Mrs. Fred Eyestone, recording secretary; Mrs. Albert Bershon, corresponding secretary; Mrs. Charles Bayer, treasurer, and Mrs. Frank Ficklin, assistant treasurer.—News clipping.

WOOD

The Wood County Medical Society held its regular dinner meeting at the Falcon's Nest, new Student Union Building, at Bowling Green University, May 21. The speaker of the evening was Arthur Rigby of the American Chemical Society and chairman of the Advisory Committee of the Toledo Civilian Defense Council. His subject was: "Poison Gases in Warfare". The society gave Mr. Rigby a rising vote of thanks for his interesting address. Prof. John Thornton of DeSales College, Toledo, was a welcome guest at the meeting—Dr. R. Barr, M.D., Correspondent for *The Journal.*

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Activities of the Woman's Auxiliary to the Columbiana County Medical Society were closed until October with a luncheon at the Lape Hotel, Salem, June 2. The president, Mrs. M. D. McCutcheon, East Liverpool, gave a short talk on the progress of the organization. The guest speaker was Mrs. J. F. Brumbaugh, Canton, who recently returned from Puerto Rico, where Dr. Brumbaugh is in charge of the base hospital at San Juan.—News clipping.

MAHONING

Dr. Loren W. Shaffer, director, Social Hygiene Division, Detroit Department of Health and professor of dermatology and syphilology, Wayne University College of Medicine, spoke on "Modern Management of Early Syphilis", at a meeting of the Mahoning County Medical Society, June 16, at the Youngstown Club.—Bulletin.

PORTAGE

The Medical Defense Set-up in Portage County was discussed at a meeting of the Portage County Medical Society, June 4, at the Robinson Me-

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morial Hospital, Ravenna.—Emily J. Widdecombe, M.D., secretary.

STARK

More than 100 physicians attended a meeting of the Stark County Medical Society, May 27, at the Alliance Country Club. Dr. George M. Wilcoxon, was chairman of the entertainment for the afternoon, which included a golf tournament. The dinner speaker was Prof. W. A. Mabry of the history department of Mt. Union College, who talked on "A Plan for Victory". Guests included Dr. Ralph L. Rutledge, Alliance, Councilor for the Sixth District, and Dr. Carl A. Lincke, Carrollton, Councilor for the Seventh District, Ohio State Medical Association.—News clipping.

TRUMBULL

The final meeting for the season of the Woman's Auxiliary to the Trumbull County Medical Society was a tea at the home of Mrs. Frank LaCamera, Warren. The following new officers were elected: Mrs. David Beers, president; Mrs. Alan Beale, president-elect; Mrs. J. H. Caldwell, vice-president; Mrs. Clyde Muter, secretary; Mrs. Densmore Thomas, treasurer. Mrs. E. R. Westbrook, the retiring president, gave an interesting report on the annual meeting of the Woman's Auxiliary to the Ohio State Medical Association at Columbus, which she attended as a delegate.—News clipping.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

Mrs. C. W. Kirkland and Mrs. L. D. Covert gave reports on the Annual Meeting of the Woman's Auxiliary to the Ohio State Medical Association, at a meeting of the Woman's Auxiliary to the Belmont County Medical Society, May 21, at the home of Mrs. P. L. Ring, Bellaire.—News clipping.

TUSCARAWAS

Mrs. W. W. H. Curtiss, Dennison, and Mrs. F. A. Bowers, Uhrichsville, were co-hostesses at a meeting of the Woman's Auxiliary to the Tuscarawas County Medical Society, May 14, at the home of Mrs. Paul Hisrich, Bolivar. After a report on the State Auxiliary meeting in Columbus by Mrs. W. E. Hudson, New Philadelphia, the remainder of the evening was spent in sewing and knitting for the Red Cross.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. Gordon Lawyer spoke on "Basal Metabolism", at a luncheon meeting of the Guernsey County Medical Society, May 21, at the Berwick Hotel, Cambridge.—News clipping.

PERRY

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lumbus, was guest speaker at a meeting of the Perry County Medical Society, May 21, at the home of Dr. S. N. Lord, near Somerset.—News clipping.

ATHENS

An interesting talk on "Hemorrhages of the New Born", given by Dr. P. J. Woodworth, at a dinner meeting of the Athens County Medical Society, May 14, at Nelsonville. Reports were made by Dr. B. R. Goldberry and Dr. Byron Danford.—C. R. Hoskins, M.D., secretary.

MUSKINGUM

At a special meeting of the Muskingum County Academy of Medicine, June 3, at Zanesville, Dr. O. I. Dusthimer, was elected vice-president of the Academy to succeed Dr. A. C. Ormond, who is now on duty in the Medical Corps of the U. S. Army.—News clipping.

Ninth District

(COUNCILOR: G. R. MICKLETHWAITE, M.D., PORTSMOUTH

SCIOTO

Dr. S. L. Meltzer spoke on "X-ray Diagnosis of Lung Conditions", and Dr. C. G. Braunlin discussed "Disease of the Prostate", at a meeting of the Hempstead Academy of Medicine, June 8, at the Portsmouth General Hospital.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: H. M. CLODFELTER, M.D., COLUMBUS)

FRANKLIN

"Emotional Reactions Created by the War", was the subject of an address made by Dr. William C. Menninger, medical superintendent, The Menninger Psychiatric Clinic and Southard School, Topeka, Kansas, at a meeting of the Columbus Academy of Medicine, June 15, at the Columbus Gallery of Fine Arts.—Bulletin.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

MEDINA

Mrs. Nevin Klotz, Wadsworth, was named president of the Woman's Auxiliary to the Medina County Medical Society, at a meeting May 12, at the home of Mrs. R. F. Fasoli, Brunswick. Other officers elected were: Mrs. H. G. Lesher, Wadsworth, vice-president; Mrs. R. I. Mansell, secretary-treasurer, and Mrs. Morris Wilderom, Medina, president-elect. The meeting was preceded by a luncheon and the afternoon's program included a talk by Mrs. Maurice Archer, Medina, who had recently returned from the Philippines. —News clipping.

Michigan Medical Service Report

Some interesting facts are contained in a recent report of Michigan Medical Service. During the year 1941, services amounting to $1,233,359.94 were received by 44,956 subscribers from 3,711 physicians. Doctors in every county in the state have had patients who were subscribers.

Since the inauguration of Michigan Medical Service, payments to physicians for service will be in excess of $1,500,000. A total of 3,327 doctors of medicine are registered as participating. The largest sum of payments in the year 1941 received by one physician was $8,648.90 (for 131 patients). The largest number of patients in the year 1941 served by one physician was 575.

Columbus—Dr. Harrison Evans spoke on "Mental Hygiene in the Present World Crisis", at a meeting of the Lions Club.

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If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

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The Physician's Bookshelf

Hughes' Practice of Medicine, Edited by Burgess Gordon, M.D. ($5.75. Sixteenth Edition, *P. Blackiston, Sons, Philadelphia),* has certainly established its usefulness to the profession. The press edition has been brought up to date in every respect and is designed primarily for those actually in the practice of medicine. Is a handy manual full of much information and free of controversial matters.

Chinese Lessons to Western Medicine by I. Snapper ($3.00. *Interscience Publishers, Inc., 215 Fourth Ave., New York),* is a timely volume and a valuable contribution to the geography of disease. It is of interest not only for the delightful, philosophizing tone, but for its insight into China.

Harold Brunn, Micro-Medical-Surgical Tributes to a Series of Essays on Various Aspects of Surgery and Medicine, written by his pupils and friends ($6.00, *University of California Press),* is a very interesting book covering a wide range of subjects and expressing appreciation and esteem of a distinguished group of American physicians for this outstanding builder of medical men.

The Bond Between Us, The Third Component, by Frederick Loomis, M.D. ($2.50 net, *Alfred A. Knopf, New York City),* is another interesting book by the author of "The Consultation Room", and is an investigation of the mysterious element in human relations as learned in the consultation room of this eminent gynecologist.

Diseases of the Skin by F. C. Knowles, M.D., Edward F. Corsen, M.D., and Henry B. Decker, M.D. ($7.00, Fourth Edition, *Lea and Febiger, Philadelphia),* represents the teachings of the department of dermatology in the Jefferson Medical College. This edition represents a thorough revision with extensive alterations. Extra material on sulfonamide drugs and tropical skin diseases have been given their proper recognition.

Minerals in Nutrition Popularly Explained by Z. T. Wirtschafter, M.D. ($1.75, *Reinhold Publishing Corporation, 333 W. 42nd Street, New York)* is a good straightforward summary of the facts as they are known on the subject. This is a subject of increasing importance and one in which your reviewer expects to see in the next ten years as many important developments as have occurred in the field of vitamins in the last twenty years. It is important to have in your library a summary of what is known as of March 20, 1942, and this is the book.

Northern Nurse by Elliott Merrick, ($2.75, *Chas. Scribner's Sons, New York),* is the story told by the author of *Frost and Fire* and the true north based upon the experiences of his wife who as a nurse in Labrador had much to tell. The author himself spent years working in the same settlements and the book is most interesting.

Time and the Physician, the Autobiography of Lewellys F. Barker ($3.50, *G. P. Putnam's Sons, New York),* is the biography of the distinguished physician who succeeded Dr. William Osler as head of the Department of Medicine, Johns Hopkins University, and is a most interesting personal record of many of the important changes that came into American Medical Education between 1900 and the present time. Every physician will want to read it.

Medical Diseases in Tropical and Sub-Tropical Areas (4.75, *Chemical Publishing Co., Inc., Brooklyn, New York),* is the first American edition of these British War Office Memoranda and therefore becomes a manual of great value to all who encounter these diseases within civilian or military practices.

Standard Radiographic Positions by Nancy Davis, M.S.R., and Ursel Isenburg, M.S.R. ($2.00, *The Williams & Wilkins Company, a William Wood Book, Baltimore),* is a British manual of pocket size on positioning, and is certainly a handy thing to have at hand when undertaking radiography.

Cardiac Clinics by Frank A. Willius, ($4.00. *C. V. Mosby Company, St. Louis),* is a well organized collection of informal discussions on the diagnosis, management, pathology and physiology of heart disease by the Chief of Heart

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154. Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

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First Aid Primer, by Hermann Leslie Wenger, M.D., and Eleanora Sense, B.Sc., M.Sc. ($1.00, *M. Barrows, 443 Fourth Avenue, New York City)*, is just what its name indicates, Civilian Defense Health Aids, Emergency Feeding, Blackout Instructions, Morale Through Nutrition.

The Eye Manifestations of Internal Diseases by I. S. Tassman ($9.50, C. V. Mosby Co., St. Louis), attempts to correlate eye manifestations with other aspects of the internal diseases by giving a more detailed description of eye manifestations of diseases under consideration, so that the needs of both the ophthalmologist and the physician are met. The work is quite comprehensive and should have a place in the library of most of us.

Management of the Sick Infant and Child by Langley Porter, M. D., and Wm. E. Carter, M. D. ($11.50, Sixth Revised Edition, C. V. Mosby Co., St. Louis), is a revision of this well accepted work brought up to date with the aid of their colleagues in San Francisco. Useful clinical advice is given in a practical way and the book deserves the wide popularity which it has.

Synoposis of Ano-Rectal Diseases by Louis J. Hirschman, M.D., ($4.50, Second Edition, C. V. Mosby Co., St. Louis) is a thorough review in a handy little volume. Twelve beautiful color plates and one hundred and eighty-two illustrations add much to this discussion of proctology.

Dermatologic Therapy in General Practice by M. B. Sulzberger, M. D., and Jack Wolf, M. D. ($5.00, Second Edition, Yearbook Publishers, Inc., Chicago), presents a text that through experiences gained in the first edition has been clarified and contracted and to which has been added the most recent information on such cardinal subjects as the early intensive treatment of syphilis, prophylaxis of syphilis, treatment of burns and the use of the sulfonamides in dermatology. The result is a book that must be on the shelves of everyone who sees people with skin trouble or undertakes the treatment of venereal diseases.

Dr. Finlay Sees It Through by Alan Hart ($2.50, Harper & Bros., New York), begins as the doctor stares at the smoke blackened ruins of the private hospital that had been his life for many years, and tells the story of how he made his dream come true of a new hospital devoted to the ideas of cooperative medicine. Of course there is a romance included, but fundamentally it is the doctor-author's ideas on economics and

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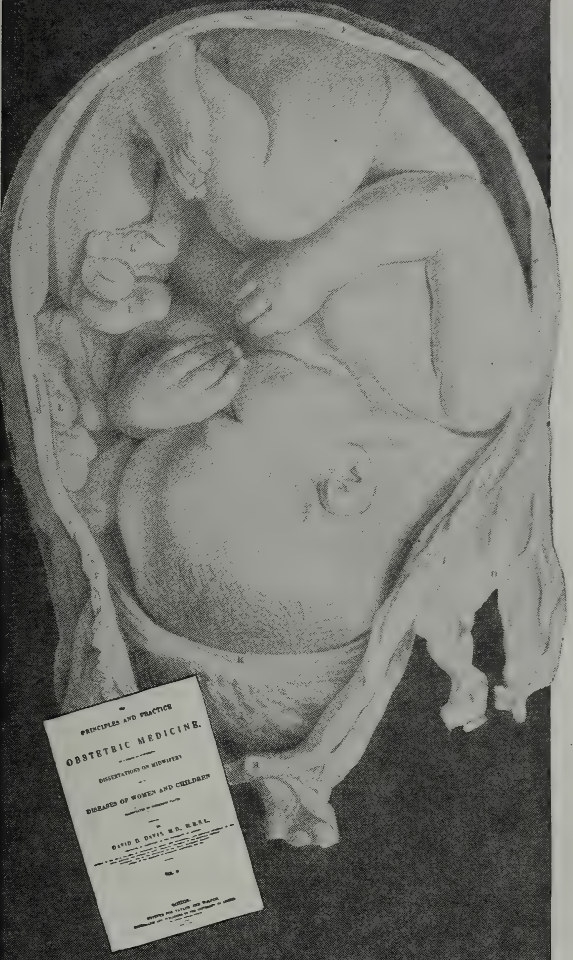
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politics that stand out against the background of his own professional experience in tubercular hospitals and chest clinics. It is a well written book and presents a concept of future medicine which will have an increasingly strong appeal when the war is over.

Synopsis of Materia Medica, Toxicology and Pharmacology by F. R. Davison, M. D. ($5.75, Second Edition, C. V. Mosby Co., St. Louis), is considerably enlarged with much new material including that on the sulfonamide drugs. The demand for a new edition within two years speaks well for its arrangement and practical service.

Serology In Syphilis Control: Principles of Sensitivity and Specificity, by Reuben L. Kahn, D.Sc. ($2.00. *Williams and Wilkins, Baltimore, Maryland)*, is an attempt to present a text for physicians in which they will find a consideration of the principles of serology which would enable them to use best the various serological tests in the diagnosis and treatment of syphilis and in the control of this disease. Actually the text carries out the full title of the volume.

Personality and Mental Illness: An Essay in Psychiatric Diagnosis, by John Bowlby, M.D. ($2.75. *Emerson Books, Inc., New York City)*, has been published to stimulate others to undertake the research necessary to confirm or modify the author's conclusions. These conclusions are that certain characteristic personalities seem especially liable to developing a functional mental illness. The neurotic child should be diagnosed in terms of his total personality, rather than in terms of particular symptoms. The author then presents a classification which begins by grouping together mental conditions which can be observed at successive phases in the the life history of single individuals; and upon these phases the classification is based.

Urology In War, Wounds and Other Emergencies of the Genito-Urinary Organs, Medical and Surgical, by Charles Y. Bidgood ($2.00, *Williams and Wilkins, Baltimore)*, is a practical manual presented by a competent naval urologist. Its scope is accurately indicated by its title. It is designed to help those who are not themselves specialists, but who may have to care for emergency conditions arising from wounds or disease. The volume has been launched with the blessing of the Surgeon-General of the Navy.

The Medical Applications of Short Wave Current, by William Biernion, M.D. ($5.00, *Second Edition, Williams and Wilkins)*, is a thorough review with 60 new drawings and most of the

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book is devoted to the strictly clinical considerations. Certainly it is a book which belongs on the shelves of everyone using this modality.

When to See Your Doctor, by Robert Srigley, M.D. (35c. *College Book Co., Columbus, Ohio*). This little pamphlet gives excellent advice about the common causes of illness, especially pneumonia, cancer, appendicitis, intestinal obstruction, diabetes, pulmonary tuberculosis, syphilis and heart disease. Only the most important causes of death for which we can do something if we see the patient in time are included. It does a very splendid job of educating the public in preventive medicine.

The Editor Squeaks, by Max Sauer. ($1.00. *Greenfield Printing and Publishing Co., Greenfield, Ohio*), is a collection of very interesting poems, essays and stories. Would make an excellent book for a physician's sitting room or an appropriate gift for a convalescent.

The Chemistry and Physiology of the Vitamins, by H. R. Rosenberg, Sc.D. ($12.00. *Inter-Science Publishers, Inc., New York City, N.Y.*), is an extraordinary volume in which the available data on the chemistry and physiology of all vitamins has been combined Begins with the presentation of a definition which distinguishes this group of compounds sharply from hormones and other essential food constituents. The chapter on each vitamin starts with a review of nomenclature and a tabulation of historical development, followed by a paragraph on the occurrence of the substance under consideration. Then the main discussion goes on with the chemistry and the physiology which is presented in great detail. The volume has successfully covered all the topics of vitamin research to date and makes an excellent guide for the student and scholar of physiological chemistry and nutrition.

Carcinoma of the Stomach, by Wattman Walters, M.D., Howard K. Grey, M.D., and James T. Priestly, M.D. of the Mayo Clinic. ($8.50. *Saunders, Philadelphia*), is the work of the authors and some 16 colleagues at the clinic. It represents the viewpoint and the practices of this famous medical center in handling one of the most common forms of malignancy, and therefore has a place on the shelves of every surgeon and internist.

Solving School Health Problems, by Dorothy B. Nyswander. ($2.00. *The Commonwealth Fund, New York City*), presents the outcome and details of a four-year, intensive study of health service in the schools in the city of New York, carried on from July, 1936, to June, 1940. Is a book which should be in the hands of everyone interested in solving school health problems.

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Emotional Reactions Created by the War

WILLIAM C. MENNINGER, M.D.

The Author

Dr. Menninger, Topeka Kansas, is a graduate of Cornell University Medical College, 1924; fellow, American College of Physicians and American Psychiatric Association; member Psychoanalytic Association; medical director Menninger Sanitarium; staff member, Christ's Hospital, Topeka.

WHAT are the Emotional Reactions created in us civilians by the war? What events have occurred in your life which have provoked an emotional reaction?

At the time that I began to collect my thoughts regarding this presentation I had just lost my first assistant, and associate physician in the hospital, to the Navy. Two more of my senior hospital physicians have signed up with the Army, and a third has applied to the Navy. Two of my nursing supervisors, from an already sadly depleted nursing staff, have left—one for the Army and one for the Navy. There is no one to take the places of any of these individuals.

The other night at the General Hospital Staff Meeting it was announced that orderlies were not procurable and that any catherizations that were required after 5 P.M. would have to be done by the physician himself.

The editor of the County Society Medical Bulletin joined the Navy and the hard-pressed president of the Society asked me to take this, my second committee chairmanship in the organization.

My neighbor, a physician, recently joined the Navy, leaving his wife and three children, the latter being about the ages of my own children. It was reported that his little girl didn't go out of the house for a week after he left. The subject came up for discussion at our dinner table and with obvious tenseness and anxiety my boys wanted to know if I would have to go and what would become of them if I did.

Each evening for the last six weeks I have come home to find that my den has been turned into a subsidiary office of the civilian defense headquarters to which my wife has mustered several of her friends and O.C.D. enrollees to spend the days making a catalogue of all the meeting places in the town, determining the number of residents in each block and charting the location on a city map of all accredited first aid graduates and air raid wardens.

One of my associates has two brothers: the older one is a private in the Army drawing his $21 a month; the younger is an arc-welder in a defense construction job receiving about $80 a week.

Five of the physicians associated with us in our group are Jewish. Recently the New York newspaper PM called our attention to the fact that in this democracy of ours the Nazi-motivated sheet "Social Justice" with its determined persecution of the Jews had a circulation of well over 200,000.

All of these intimate illustrations of daily happenings which affect the morale of myself and my associates could be duplicated in the life of every individual in this audience. They are examples of stresses and strains associated

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Read before Columbus Academy of Medicine, June 15, 1942.

directly with the War which affects every man, woman and child in America. Furthermore, they are trivial compared to those which we must fortify ourselves to meet. We must anticipate that there will be drastic and sacrificial changes required in our own private lives, in the lives of our families and that of our communities. No doubt the new powers of government will make for errors and exhibit much inefficiency, but these changes are no governmental whims or reform efforts but necessary tools of "all-out" war. Intelligent suggestion or criticism is always in order but complainers and obstructionists must fall into line. Recently one of our local wholesale distributors phoned the Director of Transportation in Washington and told him in vehement language that the new regulations were going to drive him, and many others, out of business. The Director listened patiently for ten minutes to his complaintive tirade over the long distance phone. Finally when the wholesaler had run down somewhat the Director tersely answered him, "There is just one thing of importance right now, and that is to win the war. Have you heard about it?" and then hung up the receiver.

WAR SITUATION DEMANDS READJUSTMENTS

No matter what our family situation or social status, our business or our economic level, our age or our sex, the war situation will demand that we make readjustments. The success with which we accommodate will affect others, and simultaneously, their success will influence us. The grace, the fortitude, the efficiency with which we solve our problems are determined largely by our understanding of and our attitude toward them. This understanding and attitude we call morale, but morale is more than this—its meaning includes pressure toward action. When we refer to civilian morale we imply a united and efficient effort towards the accomplishment of a common purpose. Implicit in the world also, is service under **leadership** which is not only regarded as competent by the body politic, but leadership which inspires confidence, determination, hope. Morale is sometimes described as being good or bad; perhaps more literally it should be thought of as a positive force, as being strong or weak, or absent. That which weakens morale might be described literally as demoralizing. It is these demoralizing forces which justify special study. Before such an investigation certain generalizations may be made.

The understanding, development and maintenance of morale in a limited unit is no new problem. It has been the object of much study in many industrial concerns. In fact it is not a new problem as applied to a mass of people in wartime, yet each generation and each individual, as we enter a period of stress like the present, must learn the lesson anew. This lesson is, that the formation and preservation of the healthy attitude of a group, however large, is only possible in a democracy, when the individuals within it, honestly, and rationally, consider the pertinent facts about the issue involved. The steps which create an emotional reaction are usually dramatic and the first responses are automatic. The test of the strength of a people's morale comes only after a period of stress. So long as the fighting in the present great War was confined to Europe we were divided among ourselves: capital and labor were at odds; isolationists and interventionists argued at opposite poles; political bickerings and recriminations followed strictly party lines. Then came the shock of Pearl Harbor, and overnight we were a united nation. A spectacular spirit developed, with resulting optimism, enthusiasm and willingness to expend unlimited effort in behalf of our common cause. But this initial stage passed, and the period permitting lip service without personal involvement ended, now all of us are becoming acutely aware of the new stresses and strains in our individual lives and the absolute necessity of making sacrifices immediately, with a disturbing awareness that greater sacrifices will be demanded later. The emotional responses which each of us develop depend on our willingness and ability to face, think about, and use the cold facts concerning our individual problem in relation to the national effort.

From the psychiatric point of view maintenance of strong morale probably bears the same relation to the group that maintenance of good mental health does to the individual. The mass response is made up of individual responses, so that in all probability, the elements which are found to be demoralizing in the life of the group, the disturbances which upset or destroy its happiness and efficiency are similar, if not the same, as the factors which demoralize the individual. For this reason we may advisedly consider some of the causes for individual maladjustment which could be applied to mass maladjustment. In so doing, my remarks will be considered with those of us on the home front, the civilians, since the problems confronting the men in the armed forces are different from ours in many respects and merit a separate discussion.

Before we can come to conclusions about the causes of an illness, we must, as clinicians, attempt to evaluate the total situation and its evolution. A physician is interested not only in the local pathology or what appear to be the immediate causes of the difficulty, but also, in the record of the patient's heritage, his past experiences, his pattern of behavior, his physical and chemical status. Probably these same principles should be applied to the study of a nation in attempting to understand the reactions of its people to war.

The heritage and past history of America includes a traumatic childhood with years of early struggle when it was literally a matter of the "survival of the fittest". Our nation started with economic poverty but spiritual wealth; it was founded on the determination to have freedom and liberty for every individual. In its later years, a physical strength, unsurpassed by any other nation, has been developed, while its mental attitude has continued to be characterized by an ideology of freedom of thought, action and speech, and, a philosophy of "live and let live".

OUR RELATIONSHIP WITH THE WORLD

With all this strength, however, this nation of ours has manifested certain weaknesses. We, its people, have developed an illusion of being all-powerful. We are often accused of having made money our God. Certainly our wealth and power have so multiplied that the average individual has come to think that he must have a share in this merely because he is an American. Our freedom and liberty are believed to be things that are God-given, and too few of us have assumed our responsibility of earning and justifying our possession of them.

Our relationship with the world was something of a paradox. We were primarily interested in the world for what it could bring to us. Proportionately there have been few Americans with a world viewpoint, a desire for world brotherhood and equality, a desire that the whole world should develop in order that all men might prosper and live more richly. Far too many of us believed that America should assume an attitude which the psychiatrist sees in the schizophrenic patient, that of a withdrawal from the troubles of the world, a satisfaction and contentment within one's self, an attitude of "let the rest of the world go by". Only a few months ago some of our presumably great leaders were saying that the war in Europe was none of our affair. We developed a schism between our democratic ideals and our economic greed. It is a sad commentary that one of our symptoms of weakness is now manifesting itself as Japanese bullets made from American scrap iron. Even in our own community, the most of us, most of the time, remain aloof or indifferent while our political system is such that graft and greed can thrive.

With all of its weaknesses which we, as physicians, would regard as symptoms, we still believe that America is capable of surviving the disease, War. If we can capitalize on the strongest assets of our heritage, our idealism, our economic and industrial strength, we can win if the great mass of people can make the readjustments in their thinking and living that are required. It is these changes, however, that cause our reactions to the War. To facilitate such readjustments we must have mass education. This education must tell us our status, what we may expect, what we can and should do. It will take an extremely forceful form of instruction and exhortation. Often compulsion will be necessary to obtain our desired result. As an example, the amount of energy, effort and time that has been spent in carrying on the campaign to urge investment in war bonds, is almost incalculable, but as yet too small a percentage of people has begun to meet the amount requested by the government, of 10 per cent of each salary. The hand writing is on the wall: in all probability a compulsory order will soon be issued.

Having made an investigation into the history and the present status of our patient, we clinicians have learned to recognize certain precipitating causes of a disturbance. In an individual there is never a single cause for the maladjustment, whether it is a depression or heart disease. It can truly be said that causes are multiple, though one factor may have a much greater valence than another. In psychiatry we have become convinced that in the great majority of instances the ultimate causes for the maladjustment have been determined in childhood. But on the same basis, there is probably no one, even with a nearly ideal childhood, who under sufficient strain, would not show evidences of maladjustment, of demoralization. Consequently, in addition to investigating the symptoms as they relate to the patient's daily life, we should investigate the various types of precipitating factors. On the basis of clinical experience as a psychiatrist, I should like to point out several of these, believing that they may, in general, be applicable to the mass citizenry, as threats to their morale.

CAUSES OF DEMORALIZATION

One of the commonest causes of demoralization in the individual is an increased environmental stress for which he feels there is no relief. In varying degrees this influence is and will be felt by all of us as a reaction to the War. The additional stress may take the form of more work and all its implications: more physical effort, longer hours, less leisure. In many instances it is likely to take the form of increased responsibility, even though it does not entail more physical effort or more time. For many people there will be an economic stress.

Even before the war, the average American citizen has regarded his life as reasonably full of activity and of work. Suddenly we find ourselves in a situation in which we are called upon to accelerate the speed of our living. We must work longer and more intensively, so that we can contribute more to a common need. We accept such readjustment, but not without keen awareness that we are under increased pressure. The requests and demands continue, there comes another unexpected responsibility and still others loom on the near horizon. We accept the seriousness of our national task, and endeavor to handle each addition. Potentially every individual can carry a certain psychological load, a certain psychological pressure, just as he can carry a physiological load. Theoretically at least, a straw, beyond the limit can break a camel's back. As an individual approaches this limit and sees no solution he becomes anxious, distraught, even panicky. He is no longer able to discharge the responsibilities that he has accepted. He is entirely unable to reorganize himself to cope with what looks to him like an insoluble situation. All too frequently it is some trivial event, some minor disappointment, some relatively unimportant frustration that finally precipitates the personality break-up. This man needs help long before he ever reaches the stage of the "final straw". This help should be to assist him in evaluating his responsibilities and budgeting his energy. The moral for public morale is: the need for education as to how we may learn what is most important to do, what our individual functions are, how we can all unitedly cooperate to see the War to a victorious conclusion most effectively.

A second very important precipitating agent is a threat to one's security. This can occur whenever there is an important change in one's life. To maintain our equilibrium we need to have a sense of security about our physical wellbeing, about our economic safety or occupational position, the integrity of our family and home. Whenever any of these are threatened we manifest anxiety, tension, distress. In a nation at war we feel the threat of insecurity from many sources. The starvation in Greece, the killing of hostages in France and Czechoslovakia, the concentration camps in Austria and Germany, the devastation of Poland all make us shudder, and yet their distance from us makes us feel that they are a little unreal. The suffering and courage of our men on Bataan and Corregidor somehow seems much closer home. For those of our populace who live along the coast lines the War seems very near and they are inclined to accuse those of us in the middle part of the country of being complacent and unconcerned. But there is probably no man in our audience nor any woman who hasn't thought of war's effect on his or her sons or her husband or his wife. What will be wage earner's role in this war, when will he be called, what will happen to his business, to the home? There are probably few citizens who haven't already had to make important changes in activity and attitude in an effort to meet demands of the times, and maintain security.

A third factor, one with which every psychiatrist is familiar, the extremely important effect of misinformation, and the resulting misconceptions, as illustrated by the average parents when imparting sexual education to their children. It is not only a cause of mental disturbance in childhood, but also a major cause of illness in the adult. From babyhood to old age, unless we are completely stifled in the attempt, we seek information which can explain ourselves and our environment, to ourselves, and others. If the desired knowledge is not readily available, we make up an explanation, we phantasy what we want to believe, or have others believe for us. In the larger group, this is the origin of rumor. Far too often we fail to use our critical judgment on the information we acquire. Unfortunately we must assume that some people do not have a critical judgment. If it is misinformation, we may or may not be able to evaluate it. Far too often, in either case, we react with emotion and haste. Both in attitude and action we proceed precipitously, on the basis of what we think we know, perhaps never knowing that we do not know. In the case of dramatic "news" we feel compelled to pass it on. Yet we should be alert to the danger that the spreading of wrong information or prejudicial "facts", is one of the most powerful weapons of the enemy in an "all-out" war. If we are affected personally, we feel impelled to act. We can find no better example than the rush for sugar even when there was no shortage, thus forcing rationing for the good of all.

IMPORTANCE OF INFORMATION

It is an important function of government in time of war to give out information. Its lack, insufficiency or inaccuracy may be devastating. Our confidence is built on the belief that we will be given accurate and adequate information. Under certain circumstances great emotional control is necessary when we are unable to have information, which is of vital concern, despite the fact that we have been told repeatedly that we cannot know that which would prove of potential value to the enemy. This lack of information can be a major cause of psychological strain; for instance the parents of one of my former patients, who for two years has been with the marines in the Philippines, had their last communication from their son on January 16th.

A fourth, common cause of individual maladjustment is the loss. or the threatened loss, of some person or something of special emotional value. The normal response to the loss of a loved one, or money or business is sadness or grief. Most of us weather such experiences by finding new persons or new objects in which to invest our interest, or perhaps more commonly investing it more heavily in those we have left. Psychologically there is probably little difference between the fancied loss and the actual loss of such objects, since if in our own belief it is lost, we respond in the same way. On this basis it is easy to understand that the lack of security of an individual, even though only threatened, may be distorted into a fancied loss. But many people will suffer real losses: loved one, business, money, home. Every war entails tremendous sacrifice, very heavy for some, lighter for others, but all of us will lose someone or something and the strength of our morale is dependent on our ability to recognize the need for and the eventual benefit of this sacrifice, our capacity to carry on in spite of loss and to divert the love and interest from the lost object to other people and activities about us.

MALADJUSTMENTS IN ORDINARY LIFE

A fifth cause of maladjustment in ordinary life is the feeling that one is being misunderstood, that he isn't getting a square deal, that someone or some group is treating him unfairly. This is perhaps related to earlier parental neglect or to sibling rivalry where the facts may show that the individual was less loved. This neglect may have been more fancied than real, but if it seemed valid to the individual he may continue under any similar circumstances to feel that he is the under dog, that he is being mistreated. Such a person may manifest a martyr-like attitude of long suffering with much complaining. He may display a beligerent attitude in which he may fight for his injured feelings, or, he may adopt the sit-down, obstructionist technique. Each of us probably have moments when we feel that we are not appreciated, times when we feel that we did not receive the credit that was due. Yet, we are all probably equally guilty of failing to express appreciation or give credit to others. The fact that we recognize as a symptom this feeling of being misunderstood does not deny the fact that many times there are reality justifications for such feelings. On the basis of one's life pattern, we must judge whether it is a symptom or a fact.

Unfortunately in the war situation there are many instances of inequality or treatment and of inconsideration. One individual who can "pull some strings" manages to get an X card, permitting him to have all the gasoline he wants, while his conscientious neighbor literally sacrifices to stay within the rationed amount. One friend of mine, a skilled mechanic, receives an average of $80 a week in a defense plant; another friend his same age with a master's degree in business administration receives $21 a month as a private in the Army. A rather unprogressive 46 year old internist who has no dependents except his wife, a former business woman, continues along undisturbed in his general practice. A much more progressive physician, four years his junior, with three children in addition to his wife, was asked by the Medical Procurement Service to enlist in the Army. There are these and many similar inequalities, every one of which disturb us and to some degree are demoralizing in so far as we permit ourselves to identify with the individuals concerned. Strong morale is dependent on each person resolving his own problems to the best of his ability, and minimum emotional involvement in affairs of others, to whom he cannot be of any help.

Sixth: Perhaps one of the more serious factors in the disturbance of morale is the mismanagement of the aggressive or hostile feelings that each of us harbors. Most of the time we succeed in controlling this emotion, utilizing it to good purpose by neutralizing it with sufficient constructive effort to drive on and to achieve. In civilian life the most frequent psychiatric system is shown in the mismanagement of one's hate, expressed both directly and indirectly. We see it in major maladjustments expressed as rebellion on the part of children against their parents, the parents' neglect of the children, the alcoholic's retaliation upon his family through his drinking, the neurotic wife's use of her symptoms as a club over her husband, the husband's neglect of his family on the pretext of business. We see this aggression expressed in a thousand minor ways in everyday lives of ourselves and our family and our associates. It takes the form of thoughtlessness, inconsiderateness, selfishness, sharp words, snubbing, destructive criticism, minor neglect, unappreciation. But it is one of the subtle aims of our culture and our system of education to help us learn to curb this aggressiveness, to control it, to put it to good use.

Then comes War, the paradox of all of our moral teachings. Overnight we must attempt to adjust ourselves to the necessity of killing; we must reverse our moral precepts and teachings to adopt an antithetical philosophy. For the man in the front line this is an absolute necessity. For those of us on the home front it is a theoretical desirability. The War demands that we externalize our aggressions but the civilian has fewer outlets for accomplishing this than the soldier. As a result our aggressiveness not infrequently miscarries. We find certain types of individuals who under the guise of patriotism attack all enemy aliens as if they were Hitler's personal emissaries and who suspect everyone but themselves of being spies. They are inclined to be especially suspicious of every American citizen of Japanese or German origin regardless of evidences of loyalty to their American adoption. It is this same type of individual who goes counter to every fundamental of democracy in his criticism and condemnation of the Jews or the negroes or the Indians. For many years it has been an unpleasant assignment for us Americans to consider our mistreatment of the negroes and the Indians, but in war this mistreatment may be increased by some individuals, the same methods that Hitler has used of emphasizing racial differences and fancied inequalities.

Again this aggressive and hostile feeling may be misdirected towards the government itself. In times of peace it is probably practical and desirable that an individual sincerely express his disapproval of governmental management and action. In war, however, it becomes a dangerous procedure. We are all inclined to sit in our arm chairs, knowing comparatively few of the facts, and express our opinions as to what should be done and what should have been done, to prevent the dire consequences we fear are imminent. To the psychiatrist this is a common type of behavior with many maladjusted individuals whose criticisms are not based on reality but are the result of internal conflict. The revolt against authority in many instances turns out to be a reenactment of the early family situation in which the individual had a similar feeling of distrust, dislike and disparagement of his own parents. For many the President, or the government is another father who has in some way neglected or mistreated or ignored them.

Last but not least, the aggression may miscarry to the whole cultural situation. It sometimes leads certain groups to "throw out the baby with the bath", as in Germany they bar Jewish music and Jewish composers; they ban some of the greatest books of the world and some of the finest works of art. Already in our own country we have heard local rumblings about the desirability of excluding the German language from our public school curriculum, or the banning of Wagnerian music from our concerts.

TREATMENT METHODS

Having made this examination and considered the causes of the malady, the clinician thinks of treatment. If he has found the cause, he undoubtedly can direct his treatment more intelligently. On the other hand in many instances in the practice of medicine we cannot know the cause of the disease but even without this information we can often materially relieve the patient's distress. To use an analogy, we don't have to know the cause of a fire to start putting it out. In a patient who is anxious or afraid or distraught or excited, the superficial observation can give us at least some clues for the application of palliative measures. In the above discussion, we have by no means exhausted the possible causes of disturbed morale, nor have we explained all the possibilities for emotional reactions to the war situation.

Perhaps one person in a hundred thousand who has an acute emotional response to some problem in his life connected with or precipitated by the war situation will see a psychiatrist. All the rest of us will attempt to struggle along, allaying to the best of our ability, our qualms and fears as they appear. To attempt to present therapy for the emotional reactions to the war would perhaps most scientifically be done in consideration of each reaction, on the basis of casual factors. Obviously this is impossible and again it may be presumptious for a psychiatrist to make suggestions for the mass on the basis of an experience limited to the maladjustments of the individual. On the other hand, there are basic mental hygiene precepts which do apply to the group, the knowledge of which, can fortify us against some of the possible pitfalls that lie ahead of us. It is my intention to outline these under the same general headings and with the same therapeutic point of view which we use in considering the treatment of maladjustment in the individual.

BASIC MENTAL HYGIENE

1. Giving consideration to one's physical needs: Everyone is aware of the fact that when under acute emotional strain he has no appetite, he may feel weak; afterwards he feels unusually fatigued; he may have other physiological manifestations of this anxiety. What is not so well known, however, is the fact that chronic anxiety or tension lasting over a period of days and weeks, even though an individual is able to carry on his daily routine, affects the various organs of the body, just as if they were mirrors reflecting the feeling. The result may be a loss of weight, insomnia, a progressively increasing fatigue. One is apt to ignore these, to give them slight consideration, and yet to all of us they should be warning signs. In no situation, whether it is an appendicitis or a battle with guns does a man react with merely his physical body or with his psychological makeup alone. Always the two interact. Consequently, continuous emotional strain will manifest itself. For this reason it is extremely important, if we are to be able to react effectively and happily to those necessary adjustments, we must give consideration to our physical well being. We need to be intelligent about our diet, about our need for sleep, about our exercise, about our drinking and smoking. We do not need to become faddists or extremists, but many of us do need to pay more attention to the application of the ordinary rules of physical hygiene than we do customarily. Not only is it our obligation to our nation, but above all it is our obligation to ourselves in a time of duress.

DEVELOPMENT OF CONFIDENCE

2. The development of confidence: Every physician knows that he must establish a rapport with his patient. In psychiatric problems we call this special relationship between physician and patient by the term "transference". The relationship, if it is to accomplish its purpose of being helpful to each party concerned, must be based on mutual confidence. However, when the patient shows any degree of demoralization it is much more difficult for him to establish this confidence. The physician on his part must manifest an attitude of sincerity, of patience, honesty; by his remarks and his behavior he must make the patient feel that he knows what he is doing. The patient on his part must be willing to accept help, and even better to know that he needs help. He must follow orders, even though these orders might demand that he expose a part of himself never before exposed, or receive a shot in the arm or accept bitter medicine. He, too, must attempt to be sincere, patient and honest.

This clinical relationship applies equally well, as has been suggested, to that which should exist between our government leaders and us, the people. We need not delude ourselves with the idea that they are omnipotent, but on the other hand we must keep in mind that war demands that much information which must be known to them is necessarily withheld from us. Whether we are in the Army or not, we undoubtedly shall receive many orders, the reasons for which will not be entirely clear. We shall have many demands which seem unnecessary and even unreasonable to us. However, our ability to obey these orders and accede to official demands may determine the outcome of the war. Such willing cooperation is largely dependent on our degree of confidence. But condence should be more than merely passive trust. Every physician has had patients in whom he has been aware of their lack of a will-to-fight. In spite of every favorable influence and factor, the patient makes no progress. In fact he may even die, apparently because he has no will-to-live. On the other hand, every physician has had patients suffering from an accident or illness in which the odds are all against them. There seems no chance and yet they defy all expectations and recover. They have that will-to-live.

This intangible attitude of determination is of paramount importance in war. It often means the difference between victory and defeat. It must be manifested not only by the men in the army but by the civilians on the home front. We at home are too inclined to place our confidence in historical victories or superior strength or mechanical equipment or trouble behind the enemy-lines. The United Nations have been rightfully accused of tending towards this attitude in contrast to the dogged fight against heavy odds as manifested by the German and Russian armies. We must be constantly reminded that the individual citizen's will-to-win and solid determination are the most important factors determining victory or defeat. Such attitudes are infectious, thus possessors of them greatly influence the people with whom they come into contact.

3. Gaining Insight: No matter what the illness, it is part of the physician's responsibility to educate the patient about the nature of his disease and what he, the patient, can intelligently do to combat it. If it is a psychiatric illness the patient needs to gain an understanding of himself, of what he has done to contribute to his maladjustment, of the blind spots in his methods of thinking and acting which have contributed to the picture. The physician must give him this information or so guide him that he can find it out correctly and adequately for himself. Often the most disturbing fears and anxieties are based on misinformation or lack of information.

An extremely important function of our government in time of War is to keep people informed, informed in so far as to maintaining our confidence, making it possible for us to feel that we can and are acting intelligently and not merely emotionally. We can respond with more willingness, even enthusiasm and certainly with more grace, if we know that the emergency measures are imperative. But the Government's responsibility for permitting the distribution of information or making it available implies that we—the American public—have the responsibility of watching for it and listening to or reading it and evaluating its origin. We should read and listen carefully to the best sources of information that we can find. Once we learn some new news, new ideas, new plans, new requests, it should be our responsibility to corroborate them, to compare them with what we can learn from other sources, to discuss them with other intelligent and thoughtful persons.

Unfortunately the average American—I say average—is not a deep thinker, nor perhaps even an accurate thinker. One vociferous, muddled person can create a tremendous amount of confusion which can be an extremely disturbing factor to morale. In addition to such muddled but not subversive individuals we must also reckon with the fifth column agents in our midst, those who are maliciously trying to confuse the insight and understanding we are attempting to gain. For this reason, no matter what the source of our information we should thoughtfully weigh it, interpret it in so far as we are able to do so, but avoid the formation of over-positive opinions. Especially do we need to weigh rumors, stop them where we can, refute them if possible, repeat them with the greatest caution, if at all, and label them for what they are.

4. Educational Therapy: As has been suggested, the ideal relationship between the physician and his patient, is always somewhat educative on the part of the physician. In many psychiatric institutions educational therapy has come to be an important weapon in the treatment armamentarium. In practice, it consists of formal and informal classes in practical, everyday, interesting subjects—current affairs, music appreciation, horticulture, foreign language, arts, sports, etc. Its purpose is to introduce the patient to new methods of finding satisfaction, of increasing his intellectual equipment, his cultural appreciation, or his athletic ability. It is a means of making life more interesting to him and making him more capable of living. Our educational system in America is probably unsurpassed anywhere, but adult education is in its infancy. Unfortunately, most adults are inclined to assume that they do not need to study, unless it is a subject directly connected with their job, and all too often the job does not require study. A small percentage of professional men, and certain types of industrial leaders must study to keep abreast of their field. The serious application, however, on the part of an adult to study Spanish or typing or anything else is the rare exception. Too many have not discovered the satisfactions therein.

Educational therapy as a means of maintaining morale and combating demoralization offers many opportunities. Every American could well study the real meaning of the democratic ideals versus practices. Thoughtful consideration would probably reveal undemocratic attitudes and behavior in the lives of most of us. It might be a profitable experience to examine our undemocratic prejudices honestly. For instance, the attitude towards our servants or our neighbors, our attitude towards foreigners and particularly refugees, towards certain religious groups, towards Negroes, Jews, and Indians. The time is now appropriate to do some intelligent reading about democratic principles and democratic practices for more general use in a post-war world. Discuss them with your family, your friends, your associates, and put them into action.

Educational therapy can go much further, as an aid to the neutralization or alleviation of our anxieties created by the war. There is not a single individual who could not make himself more efficient by the study of his own job. There are a host of opportunities for every one of us to fit ourselves for subsidiary war jobs, as air raid wardens, first aid experts, home nutritionists. If it is our responsibility to improve our relationships with South America, study groups in Spanish, in geography, in history are now in order. From experience with psychiatric patients, we know that education has real therapeutic value for the individual. There is every reason to assume that it would be equally applicable both as a prophylaxis against and a treatment for weakened morale of the mass.

5. Occupational Therapy: Since the time of Hippocrates the medical profession has recognized the value of having the patient engage in some constructive work. No psychiatric institution which regards itself as a treatment center can function without an organized occupational program. Furthermore, we have learned that it is far more than just merely a matter of keeping one busy. It should be a series of opportunities through which the patient has contacts with other people and should afford a series of outlets for the expression of certain types of personality needs. To be most effective it must be planned, carefully prescribed and scientifically carried out. It is a method of doing, of acting, of projecting oneself into his creation. So valuable a tool certainly must have great potential possibilities in combating the emotional reactions to war.

There are many practical ways in which one could apply this idea of occupational treatment to the general public. The present emergency has stimulated a desire in most of us to want to have a part in the war effort. There are many activities directly related to the war which need our time and energy, as much of it as we can give. We cannot use this as an excuse for the neglect of our regular responsibilities and functions, but on the other hand, the shortage of man power, with many additional jobs provides an opportunity for every citizen to participate. As necessary as the work of the Civilian Defense organization is, probably one of its most important functions is to provide an opportunity for each person to feel that he is having a part in protecting the home front. Similarly there are an unlimited number of opportunities through the Red Cross organization. Perhaps there is no more important civilian work directly connected with our Armed Forces than that which is being carried out by the United Service Organization. Not only should we support these groups to the limit of our finances, but, even more important, the investment of time and energy and effort in direct participation by each of us would undoubtedly aid morale as well as the war effort.

I have not mentioned the opportunity for work in our civic organizations or civic clubs, our social agencies, the Boy Scouts, the Girl Scouts. Never was the opportunity greater or the need more pressing for manpower in these, and incidentally, never was there a richer opportunity for a realization on the investment of time and energy by the individual.

6. Recreational Therapy: Closely allied to occupational therapy and sometimes overlapping it is recreational therapy. Recreation as a thera-

peutic tool has become widely adopted in most progressive psychiatric institutions. As an organized effort and scientific application, recreational therapy is a more recent development than occupation, but it has become equally important, and in some ways more important, as a treatment measure in psychiatric institutions. Surveys indicate that a considerable number of people never learn to play. They have never learned to make recreation a part of their daily life program. Furthermore the absence of hobbies or recreation interests is more frequent in psychiatric hospital patients than in a control group of normal individuals. On this basis, the psychiatrist concludes that if one is successful in filling his leisure time with recreational or avocational or hobby activities, these are important aids in the maintenance of his good adjustment. Consequently it is the psychiatrist's urgent advice that every individual should play; if he doesn't know how, he should learn. Furthermore, in times of emotional stress the desirability for this outlet is proportionately greater.

With the advent of War the people of the United States are forced to assume a responsibility for greatly increased work. Each of us feels the necessity for high pressure production, longer hours, greater responsibility. With tire and gasoline rationing most of us will be deprived of our week-end auto trips, our summer vacations and even short recreational excursions away from our home. The planning of appropriate and satisfying recreation seems all the more necessary. If we must have play to complete our lives, and if the time in which we may play is reduced it is obvious that we must learn how to plan to play better while we are playing. But curiously enough, many people have looked on play as something unnecessary, as something in which they perhaps should not indulge. It may be a hangover from our early American heritage when play was frowned upon if not thoroughly disapproved. For many people play is still a child's game; consequently it is desirable that educational efforts be pushed towards enlightening the average citizen about the desirability of play as an important factor in maintaining his good adjustment to life. In psychiatric practice we have found it one of our most effective therapeutic measures. If it is good for sick people it is even better for well people. One of the earliest instructions sent out by the councillors on civilian morale, addressed to the American public, advised that we should work as hard as we can but that we should hold on to our hobbies. This advice might also have included the admonition that if one doesn't have a hobby, he should develop one.

RECREATIONAL PROGRAM IMPORTANT

This leads to the point that many people do not have a hobby, a sport, or an avocation. Mention has been made that many of our psychiatric patients indicate that they never have played; they haven't known how to play. Perhaps one might argue that the normal person automatically will balance life by seeking for himself some sort of recreational outlet, but again the studies indicate that he does not. There is little doubt that many adults feel some sense of guilt if they play. In play we are more truly our natural selves than in our work; yet we feel a threat to the civilized superstructure of the personality in the act of play for this very reason. It is too tempting, too unrealistic. And of this sense of guilt, the larger part comes from the voice of the conscience, an echo of the parental prohibitions which are displaced to society, the government and the voice of science. If therefore those who stand in the position of parental figures to society formally sanction the indulgence, it loses a part of its burden of guilt. Psychiatrists are convinced by scientific experience to believe that recreation should be a part of public health.

As a practicing psychiatrist who has found recreation to be one of our most important treatment methods, I would give this advice to every individual: If you don't know how to play make it your business to learn. If you do know how, or as soon as you know how, take it seriously; do it regularly. Develop a hobby, an avocation, a recreational program. It is as important in the maintenance of good mental health as good food is to physical health. Don't feel that you must justify your activity and don't do it on the basis of self-improvement. If you can learn to have fun from it and gain satisfaction from it, it is more important for you and more beneficial to you in times of stress than under ordinary circumstances.

7. Socialization: An important treatment method used by every institutional psychiatrist is what might be termed **socialization.** It consists of a definite program for social groups under the direction of therapists where much of the beneficial effect results from the influence of the group upon each individual constituting it. Under certain circumstances when our main effort is directed toward creating a certain point of view or attitude it is called **group therapy**, for instance any type of educational class is a kind of group therapy. In many psychiatric institutions the plan has been used where the psychiatrist calls a group of patients together to talk to them about mental hygiene precepts, or about their own ideas of mental health. Such therapy is even more effective where the members of the group are encouraged to participate by the expression of opinions, by the promotion of discussion, and even by asking questions.

In some degree, however, in every social gathering, whether it be a party or an entertainment, a tree planting ceremony or a walk-building gang, an important part of the benefit is derived from the opportunity of an individual to identify himself with the group, both in its spirit and its activity. All of us are influenced tremendously by group pressure. Much of what we do is done because of our desire to conform, because of our desire, in fact necessity, to have the approval of the group. Because of the number of people in a group most of us can receive much more than we have to give. When the attitude and activity of the group is directed toward a specific goal it is identical with **morale building.**

SOCIALIZATION

Under normal circumstances, at least in our culture, socialization in some degree is not only a desirable activity but it is a healthy characteristic. It is most beneficial in a group which is not too large, one in which an individual may have contact with each other member of the group. Large parties may be pleasurable, but ordinarily most of us will partition ourselves off into smaller groups within the large group. The benefits are legion: we have an opportunity to express ourselves; we learn to know others and discover how they think, what they know, how they feel; it affords us an opportunity for comparison, comparison between other individuals, and with ourselves. Probably most important, it gives us an opportunity to manifest interest in, and in the broad sense of the word, express love towards others and in return receive that priceless benefit for ourselves.

In War times this socialization treatment is more important than under normal circumstances. The need to compare views, to pass on news, to learn of the opinions of others, to know what the other man is going through may often fortify us to meet our own problems. One factor in socialization which is extremely important in its bearing on morale is the contagious quality of our emotional response. This contagious factor may work for the benefit or detriment of the situation and the individual. For most of us our emotional responses are automatic, with little consideration of facts, or at least a delayed consideration of the facts. Thus, after Pearl Harbor we were all aware of a phenomenal sense of unity and optimism which undoubtedly was beneficial but somewhat illusory. We know equally well that fear and anxiety are extremely contagious. Consequently, in our contacts with others we must make a special effort to guard against the contagion of their fears and anxieties, and in so far as we are individually capable, to remain steady and thoughtful and intelligent in the control of our own emotional expressions.

8. The Consideration of Children: Last but not least in thinking of our treatment methods, a special consideration should be made of our children. I am specifically referring to those little folks at home who look to us, their parents, to formulate their ideas from our ideas, their emotional attitudes from our emotional attitudes. I am not unaware of the fact that many adults are also children in their intellectual and emotional development, and certainly all of us act childishly at times.

It is perhaps the most common psychiatric finding that maladjustment in children occurs because the parents expect them to be miniature adults, expect them to behave, to understand, to comprehend far beyond their years. In considering our reactions to war, we should be keenly aware of our influence upon our children. They have far fewer inner resources and less experience to call upon than we adults. We teach them to be kind to dumb animals. How can we expect them to understand wholesale human slaughter? By right of their normal status they are dependent, yet in this present situation they are threatened with the loss of this support. I wish one might always know how much we could explain to them, how much we should explain to them. I wish we knew how we could best allay their fears and anxieties, but we do have a guiding principle gained from child psychiatry—that we should attempt to explain to them all that they can understand and certainly we should answer their questions in as forthright and honest a manner as we can. Most important is the example which we set: in our emotional attitudes, our determination to win, our activities in what I have chosen to call occupational therapy and recreational therapy and living to meet them. Every one of us has felt educational therapy. One might say that the prime responsibility of parents in wartime is the morale of their children, and this means keeping them informed, encouraged and secure.

SUMMARY

In my attempt to present the emotional reactions created by the War, I have had in mind the everyday problems facing you and me and our attempts to readjust our attitudes and our living to meet them. Everyone of us has felt keenly, in some way or other, emotional stress related to the War effort. We must expect more pressure which will demand greater readjustments for each of us. I have attempted to point out some of the casual factors which, as a practicing psychiatrist, I have seen disturb the morale of an individual. Believing that these, at least in principle, are applicable to the mass, I have attempted to apply them to the war situation: the increased environmental demands for which an individual feels there is no solution; the threat to one's security; the results from a lack of information and the damaging effect of misinformation; the threatened or real loss of an object of special emotional value; the belief that one is being misunderstood or mistreated, or unfairly treated; and the misdirection of our emotional feelings, particularly our hostile feelings.

Even more important than understanding the possible causes of demoralization, and often applicable when we do not understand the causes, are the treatment methods. It has been my desire to present these in terms which are familiar to the layman, even though I have taken them from the psychiatric experience with the treatment of individuals. They might be regarded as the ABC's for the maintenance of morale, for the maintenance of one's individual well being, and in war time they are particularly desirable for adoption by every individual. First, we should consider our physical health, the avoidance of fatigue, the need for physical endurance, adequate rest. Second, we need to develop confidence, to spread confidence and be motivated wholly by the will to fight and the will to win. We need to understand what we are doing, what our individual part is; we can profitably give special thought to what we mean by "democratic ideals and practices," with sufficient self-analysis to discover our own undemocratic methods. Every individual can and certainly should participate in some sort of activity in connection with the united war effort, both with his investment of money, and his investment of time and effort. Under no previous circumstances has there been any more justified need for every individual to have a hobby or an avocation, and he should take it seriously and play at it regularly. We need to maintain our social relationships, to intensify them and make them more valuable to us. And finally and importantly, those of us who are parents have a major job in maintaining the morale of our children.

Why School Children Fail

It may seem presumptuous for a physician to discuss "Why School Children Fail." but a close examination of the question reveals the fact that the causes of retardation and failure of school children are medical as well as educational. A retarded child is a sick child in the sense that it is an inadequate child, and conversely, a sick child becomes sooner or later a retarded child. Therefore, it is not only right but also necessary for the physician to understand all the causes of school failure. The physician is frequently challenged by this problem not only because the histories of his patients of school age reveal that failure is an associated secondary finding but also because these children are brought to him chiefly or primarily for this complaint.

The average American child enters public school at the age of six. If during his school career he falls below his grade for his chronological age, he is considered retarded. By this criterion one-third of our American children are retarded or are failing in the elementary schools. This means that one out of three children does not finish the eighth grade at fourteen years of age, if at all.

The immediate causes of failure and retardation are numerous. Some are found within the child because of his poor natural endowment; others may arise from the environment in which he lives, while still others may be the result of faulty or unskillful practice of teaching.

In addition to the usual physical medical appraisal, the physician must note intelligence, special abilities and disabilities, attitudes towards school and teachers, personal relationships to other pupils, social adjustments in the school, suspicious behavior trends, and attendance at school. The physician cannot afford to neglect anything about the child and his school environment that may complete his knowledge of the "whole child."

* * *

A second important group of causes of school failure and retardation is related to the physiologic fitness of the body. Even in the presence of normal mental capacity, mental output as measured by scholarship becomes inferior because of lessened energy and increased fatigue. These conditions do not change mental levels but they do change mental output. The effect of such physiological disturbances as chronic fatigue, "nervousness," and malnutrition is far reaching. From the standpoint of the general practitioner it is impractical to try to draw a sharp line of demarcation between these three common disorders. All three must be accepted as stages of a dynamic imbalance of the body springing from the same general sources. Their causal factors are practically the same: (1) Diet, inadequate in quantity and quality. Evidence is rapidly accumulating that even such mild transgressions in diet as the omission of a single food element may produce a state of lowered vitality and give rise to behavior disturbances and consequently, to school achievement. Indigestible foods, foods lacking essential vitamins, bad racial customs of cooking, and disturbing psychological situations at meal time have their bearing on biological fitness and school fitness. (2) Sleep, insufficient or disturbed. (3) Physical activity, prolonged and excessive. (4) Overstrain, accumulated and residual.—Max Seham, M.D., Minneapolis, Minn.; Journal-Lancet, Vol. LXII, No. 5, May, 1942.

Due to aid extended to families in which tuberculosis is a problem, it is not at all impossible that the general expenditure for tuberculosis outside the sanatorium may be equal to, or exceed, the expediture for tuberculosis within the sanatorium. L. M. Morse, M.D., Wisconsin Med. Jour., March, 1941.

Treatment of Acute Cranio-Cerebral Injuries

EDWARD WILLIAM SHANNON, M.D.

IN 1811 John Abernathy protested against the "propriety and necessity of trephining the cranium under various circumstances consequent upon injuries to the head." Since that time the pendulum has swung from one extreme until now most authorities feel that conservative treatment of acute head injuries gives the best results.

Recently Swift has determined that annually there are 112,000 skull fractures in the United States. This figure emphasizes that the treatment of cranio-cerebral injuries belongs in the hands of the competent surgeon rather than the specialist. Now that we are at war there will be a tremendous increase in head injuries and it is the duty of every physician to have a clear idea of the accepted treatment of these injuries.

The main object in the therapy is of course to save the patient's life; to preserve functions; to prevent complications and to reduce the incidence of late sequelae as much as possible.

There are many classifications of skull and brain injuries but I believe the best is that of Dr. Donald Munro of Boston, who takes into consideration the pathological, physiological and antomic features. This classification is reproduced in the following chart.

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The first thing to determine in a head injury case is whether or not the patient is in shock as most patients receiving a severe head injury are in a condition of surgical shock.

It can not be too strongly stressed that this shock, if present, must be treated immediately before any further examination or procedures are carried out. External heat is best applied with a heat craddle but one must take the temperature frequently and if it goes above 99.0 F rectally the heat should be discontinued as occasionally the thermo-regulatory center may be injured and the patient will run an alarming hyperpyrexia, in which case it is wise to give ice water enemas, alcohol rubs and apply ice bags over the carotid, axillary, femoral and popleteal arteries. This being done of course after the patient has recovered from the initial shock.

CHART I

- SCALP
  - Lacerated or/and Incised Wound
  - Contusion
  - Hematoma
- SKULL
  - Linear and/or Comminuted Fractures
  - Depressed Fractures
  - Compound Fractures
  - Special Fractures
    - Involving Para Nasal Sinuses
    - Middle and/or External Ear
    - Including Pneumoencephalocele
    - Cribiform Plate
    - Bullet Wounds
- BRAIN
  - Concussion
  - Edema and Congestion
  - Contusion and/or Laceration
  - Special
    - Sub or Extra Dural
    - Sub-pial
- BRAIN
  - Hemorrhage
    - Sub or Extra Dural
    - Rarer Forms
      - Sub-pial
      - Sub-cortical
      - Intraventricular
      - Rupture of Venous Sinuses
      - Multiple Petechial
  - Infection
    - Meningitis
    - Cortical Abscess
- GENERAL BODY CONDITION
  - Surgical Shock
  - Dehydration
  - Exhaustion

Submitted May 18, 1942.

At Temple University Hospital the following routine is used to combat the shock. In addition to the heat 50 cc. of 50 per cent glucose is given immediately and if there is no improvement in 10 minutes 250 cc. of saline is given every hour until the pulse is less than 120 and the systolic blood pressure greater than 90 mm of mercury. Voris believes however it is better not to give saline as the Na Cl tends to cause edema which in turn must be treated later. He advocates the use of 10 per cent glucose which is mildly hypertonic and thus tends to reduce the edema. If there is excessive perspiration 15 min. of surgical pituitrin may be given every half hour and 1/100 gr. of atropine every hour. If the patient is bleeding the hemorrhage is controlled and if necessary arrangements made for a transfusion. One should always make sure that the patient has an adequate air way. Also if the patient is unconscious give 10 per cent carbon dioxide in 90 per cent oxygen. The patient usually reacts from shock in 15-60 minutes under this form of treatment.

CARE IN CHOICE OF STIMULANT

Care must be used in the choice of a stimulant, if one is thought necessary, as it is not wise to elevate the blood pressure too much. Caffeine-sodium-benzoate is the drug of choice. During the period when the patient is reacting from the shock there should be as quiet and restful an atmosphere as possible and no procedures, such as undressing, examining or washing the patient should be carried out.

Assuming there is no shock nor that the patient has been unconscious or has any craniocerebral injuries the following treatment of any injuries to the scalp is carried out.

In the treatment of the scalp wound it is important to shave the area for a radius of 2 inches from the edges of the wound and then clean the shaved area thoroughly with soap and water but avoiding the wound at this time; 0.3 per cent iodine is then applied to the cleaned area, sterile gloves put on and the laceration blocked with 0.1 per cent novocaine. The next procedure is to thoroughly clean the wound with soap and water, then change gloves and palpate the wound with a finger for fractures or foreign bodies. Practically all authorities discourage the use of a probe in palpating the wound, if there is no fracture all of the devitalized tissue is removed and the wound closed with silk, suturing the galae and skin separately. Many men advocate giving all patients with open wounds tetanus antitoxin and gas gangrene antitoxin while most feel it should be given if the wound is obviously contaminated or if it was received where there was soil about. The sulfonamide drugs may be packed into the wounds but it is best to prevent the powder from coming into contact with the skin as there is some experimental data which shows that their presence seems to retard healing.

It has been standard teaching that infections of the scalp are rare due to its great vascularity. It has been interesting to note, however, that in a series of 57 cases of English soldiers who received head injuries and were given emergency treatment on the field, of the 27 operated there was primary healing in only two cases. This merely indicates that strict aseptic precautions should be used in wounds of the scalp irregardless of how innocuous they appear.

The treatment of the contusion and hematoma is purely symptomatic. Ice bags and aspirin are usually very helpful. However, as a late sequelae of an apparently innocent blow one must keep in mind traumatic osteomyelitis, commonly known as "Pott's Puffy Tumor", in which a blow of moderate violence is received and it apparently has had no effect on the patient and there is then a period of apparently good health before the development of headache, fever and a soft puffy swelling over the area of the original injury. Treatment is the same as for osteomyelitis in any other place, namely incision drainage and removal of necrotic tissue and bone combined with the use of the sulfonamides.

Harvey Cushing once said, "It is the fractured skull which is exhibited in our museums, not the damaged brain. But, what has happened to the skull is of far less moment than what has happened to the brain, and yet this has been given less study". As we all know a skull fracture per se is of little import as compared with the cerebral damage which usually accompanies it.

In addition to Munro's classification we may put fracture into an operative or non-operative class. Those which require operation are any compound or depressed fracture. In discussing the treatment of nonoperative fractures it is well to remember that the treatment of the cerebral damage is the important factor. In most cases of fracture there is no advantage in taking X-rays except to show if it is depressed or goes across the middle meningeal artery. Thus it is best to wait until the patient has made a complete recovery before taking any films and then only for medico-legal reasons. Glasser and Blair in 1936 showed that X-rays taken in children up to six months after the injury and in adults up to nine months were as accurate in showing a fracture as those taken immediately.

BASALAR FRACTURES

Brody believes that in all cases of basalar fractures with rhinorrhea or otorrhea of cerebral spinal fluid the patient should be immediately started on sulfapyridine as he thinks the pneumococci is the most frequent invader. Sulfathiazole is contraindicated as it does not reach an adequate level in the cerebral fluid. If there is any blood coming from either or both ears there should be no attempt made to clean, wash or examine the ear. In rhinorrhea the patient should be told the importance of not blowing his nose as infection may be forced up through the cribiform plate.

Simple linear fractures of the vault heal without any treatment other than that for the associated cerebral damage.

COMPOUND FRACTURES

Compound fractures are as Munro states simply a problem in sepsis. In a series of 900 cases of head injuries treated at the Boston City Hospital approximately 10.5 per cent of all cases had compounded skull fractures. Munro has set up a form of treatment of these cases which is almost a ritual and he insists that it is carried out strictly. On admission the wound is palpated by one person who is responsible for the diagnosis and if there is a compounded fracture no attempt is made to clean the wound but it is covered with sterile gauze and left that way until the patient is operated. If shock is present it is treated and that is all that is done except the associated brain damage may be treated with hypertonic glucose or lumbar punctures. The patient is not operated before 24 hours regardless of his condition, except if extradural hemorrhage is present which is an indication for immediate operation. The operation may be safely delayed for as long as 48 hours. If it is not done within that time, however, it should be deferred for three to six months. During this preoperative period the patient is to be observed. This period may also be used to get the patient to the best equipped hospital and to arrange for suitable donors to come in should transfusion become necessary.

The operation is carried out under either a local or general anesthetic depending upon the patient. In both types of anesthetics it is well to use avertin as a basal anesthetic. The head is then completely shaved and prepared in any way desired by the operator. The wound is then outlined in such a manner as to surround the wound and allow excision of the wound edges. If there are multiple lacerations care should be taken that the blood supply is not interrupted as gangrene of the scalp will follow if this precaution is not carried out. The wound is completely debrided "en block" including the pericranium and the fracture exposed. The instruments are then discarded and clean ones substituted. Only the compound portion of the fracture is debrided and this is done by drilling a hole on one side of the fracture and then using a De Vilbiss rongeur. Extreme care should be used when working in the region of the venous sinuses. If the dura is intact and there is no reason to suspect a subdural hemorrhage the wound is tightly closed with silk. No attempt is made to fill in the bony defect. If the dura is torn the torn portion is excised and an opening made large enough to thoroughly inspect the underlying cortex. It is at this point that most surgeons commit a grave error of omission in that they do not completely debride the contused cortical tissue with its associated clots and bacteria. This is best done by means of ordinary suction which will remove devitalized tissue but will not take normal brain tissue. The wound is then closed tightly without drainage and covered with silver foil. The only exceptions to the above treatment are when the fracture involves the supraorbital ridge, a venous sinus or one of the frontal air sinuses.

If this type of treatment is followed Munro believes the morbidity of sepsis should not be greater than 5 per cent.

Depressed fractures occur in about 5 per cent of all craniocerebral injuries and is an indication for operative interferences. The condition is best diagnosed by X-ray. This type of fracture is invariably accompanied by some sort of cerebral damage and the signs and symptoms are due to this associated brain injury. The operation should not be carried out until the cerebrospinal fluid pressure is established at a normal level. The depressed bone is then elevated and the dura explored for subdural hemorrhage or the presence of devitalized tissue which should be removed if present. Care must be taken that the outer table of the skull is not elevated without also elevating the inner table. The wound is then closed without drainage.

It was interesting to note that the incidence of skull fracture varied from a high of 70 per cent to a low of 25 per cent in various series of different surgeons throughout the country.

IMPORTANT ELEMENT IN HEAD INJURIES

Next is the consideration of trauma to the brain which is as has been mentioned previously, the most important element in head injuries. These again may be divided into two classes, namely those which require operative treatment and those which do not. By far the largest group falls into the nonoperative class, about 70 per cent of all craniocerebral injuries, and this group is composed of concussion, congestions and edema, and contusion and laceration.

Concussion may be defined as a condition in which a blow on the head produced some degree of unconsciousness but upon recovery there are no signs or residual symptoms. The pathology and physiology of this condition is unknown and there are a great many theories, none of which have been shown to be correct as yet. Concussion is never fatal and requires no treatment except that the patient should be observed for at least two hours and not be left alone for at least 24 hours. If any unusual symptoms develop later the patient should be told to consult a physician.

The next type of injury is edema and congestion. In addition to the initial concussion there is superimposed edema and congestion of the brain which naturally increases the volume of the brain. This is due to a leakage into the perivascular and perineural spaces and due to the decreased absorption of cerebrospinal fluid as a result of the venous congestion. The typical picture of this type of injury is a blow followed by unconsciousness and when the patient becomes conscious he has headache, dizziness, nausea, confusion, loss of memory and there may even be convulsions. The cerebrospinal fluid pressure will be above normal but is normal as to cell count, chemistry and is free of blood. When one has in mind this pathologic physiology the therapy may be put on a rational basis and thus we see that the edema should be reduced. This may be done by (1) limiting fluid intake to 1000 cc. per day (2) intravenous use of hypertonic solutions (3) magnesium sulfate enemas and (4) lumbar punctures.

USE OF LUMBAR PUNCTURE

The use of the lumbar puncture is not accepted by all and there are a few such as Walter Dandy who condemn its use. If it is used a few things that should be remembered are to always do it in a recumbent position and not to flex the head as this might compress the jugular veins and cause an abnormally high pressure. There are a few contraindications to its use and they are, (1) pimples, acne or infection in the lumbar region (2) shock (3) uncooperative patient (4) irregular respiration or a respiratory rate below 16. While many state that it is a dangerous procedure in one series of over 1000 cases of craniocerebral injuries in which it was performed there were no fatalities. W. McKissock in a series of 56 cases noted that there was no correlation between abnormal clinical signs and abnormal changes in the spinal fluid. If the pressure is only moderately elevated enough fluid is withdrawn to bring it down to normal and if it is markedly elevated it is brought down gradually. The number of lumbar punctures done depends on the response of the patient and may be done as often as every six hours. It is discontinued when there are two normal readings 24 hours apart.

Aspirin and several ice bags applied to the head may be used to combat headache.

The most serious type of head injury is that of contusion and laceration which is superimposed upon the two previous types. It is due to a severe blow causing a contusion of the brain with resulting hemorrhage and there may even be laceration of the brain. In this type of injury there is increased cerebro-spinal fluid pressure and the fluid is bloody. It is characterized clinically by (1) unconsciousness which may be prolonged (2) loss of sphincter control (3) respiratory distress (4) delirium (5) convulsions (6) disorientation (7) nausea and vomiting (8) retrograde amnesia (9) somatic or cranial nerve palsy along with disturbed reflexes. The treatment is the same as that for edema namely judicious dehydration and the use of lumbar punctures. The patient should be closely observed and a chart kept of the vital functions i.e. blood pressure, pulse, respiratory rate and the state of consciousness. It is a good idea to arouse the patient every hour and in this way the patient is not likely to slip off into coma without the staff becoming aware of it.

Morphine is absolutely contraindicated in head injuries where there is increased intracranial pressure as it clouds the condition of the patient. Also patients who expire of head injuries usually die of respiratory paralysis and morphine depresses the respiratory center. Another common misbelief is that decreased intracranial pressure will cause more cortical or intracortical bleeding and thus some men feel it is not wise to reduce the intracranial pressure.

Doctor Dandy believes that the sooner these cases are gotten up the better it is for them in the prevention of post traumatic sequelae such as nervousness, headache, dizziness, etc. He is practically alone in this, however, as most men feel that the convalescence should be at least 14 days in bed for anyone who has been unconscious for more than 15 minutes or who has had blood in the spinal fluid or a fracture. Also Voris believes that in any minor injury in which headache persists for more than three days fluids should be restricted to 1000 cc. and saline catharsis carried out daily.

It was interesting that in a large series of cases in a Chicago hospital there were no late sequelae so long as there was no compensation or litigation concerned.

Many cases of acute head injuries which are seen are obviously drunk or have the odor of liquor on their breath. This should make no difference in the treatment they receive. If they are unmanageable paraldehyde should be given as it has a wide margin of safety and is rapidly excreted.

INJURIES WHICH NECESSITATE OPERATIVE INTERFERENCE

Subdural and extra dural hemorrhage are two types of injuries which necessitate operative interference. The subdural is the more common occurring in about 12.0 per cent of all craniocerebral injuries whereas only about 2.5 per cent of head injuries have extradural hemorrhage even though one hears much more about the extradural hemorrhage.

Many men divide the subdural hemorrhage into acute and chronic forms. The acute form is always associated with a cerebral injury and its signs and symptoms are superimposed on those of contusion and edema and are of a very similar nature. The diagnosis is difficult and is made by close observation of the patient. While changes in the vital signs are important it appears that deepening coma or increased restlessness occur first and their presence often indicates a subdural hemorrhage. Dilitation of the homolateral pupil is the most definite localizing sign of a hematoma and if it develops under observation it is very important. Jacksonian convulsions may be of localizing importance. Also if a head injury fails to show the expected improvement under conservative treatment a subdural hematoma should be suspected. Nuchal rigidity and slight increase in temperature are also signs which may be present in a subdural hemorrhage.

SYMPTOMS OF CHRONIC SUBDURAL HEMORRHAGE

Symptoms of a chronic subdural hemorrhage may be delayed for as long as months or even years after the original injury. The symptoms are progressive and frequently mental disturbances predominate and the patient may be thought to be psychotic. Headache, vomiting and papilledema are other common signs and symptoms. Lumbar puncture of these patients usually shows increased pressure and a xanthochromic fluid.

In both the acute and chronic forms operation is performed. The procedure consists of making a burr hole in the mid-parietal region above the ear. The dura is then opened and the clot and any devitalized tissue removed and the wound closed tightly with silk. If no hematoma is found the same procedure should be carried out on the other side. These hematomas have a tendency to be bilateral and so if after one side has been operated the patient fails to respond, operative interference on the other side should be considered. Subtemporal decompression may rarely be necessary but there are many who think that this operative procedure is of no value.

The mortality is high in cases of acute or early subdural hematomas but the prognosis is good in late cases if the increased intracranial pressure has not rendered the patient moribund.

The typical picture of an extradural hemorrhage is temporary unconsciousness followed by a lucid intervals and then progressive coma. It is rare to find this typical picture due to the fact that the associated brain damage usually obscures the picture and the patient remains unconscious from the time of the injury. Lumbar puncture reveals increased pressure but clear fluid. Munro states that he believes the diagnosis of extradural hemorrhage is one of the most difficult to make in all types of head injuries. X-ray is important in this type of injury as any fracture line crossing the middle meningeal artery is suggestive. The X-ray should show the vascular groove as well as the fracture line, however. Clinically the condition is similar to subdural hemorrhage but usually develops in a shorter period of time as the bleeding is generally arterial but it may be from the venous sinuses. The treatment is operative at the earliest possible moment and at operation three things should be done. The clot completely removed, the bleeding point identified and either ligated or clipped if arterial and if venous closed with a muscle stamp graft and thirdly the dura opened sufficiently to produce an effective decompression. Postoperative edema is a frequent complication and should be treated in the usual way. The mortality in this type of case is about 28 per cent.

If the procedures which have been mentioned are followed the mortality rates of acute head injuries should be reduced to between 15-20 per cent depending upon the experience of the physician handling the case. There are factors other than the injury alone which affect the mortality rate, however, such as age and general physical condition. As an example Wortis showed that the mortality rate in children under 12 years of age was only one-half as great as that for patients over 60 years who had received craniocerebral injuries.

In closing I would like to reiterate that the conservative treatment of acute cranocerebral injuries gives the best results and operative interference should be limited to the conditions which have been pointed out above.

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Transverse Abdominal Incisions

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TRANSVERSE incisions in abdominal surgery are not of recent innovation, but the advantages of the incision have not been sufficiently recognized for its universal adoption. It is our purpose to point out the several basic advantages of this surgical approach to intra-abdominal lesions and to give credit to Dr. R. A. Griswold[1] for suggesting this incision to us as a more rational approach to the abdomen.

During the past one and one-half years we have employed in abdominal surgery the transverse incision to the exclusion of all other types in both upper and lower abdomen. In contradistinction to the vertical incision we have found not one instance for postoperative herniation or even weakening of the abdominal wall. This was true in spite of the fact that on several occasions the wound was the seat of a rather severe infection with prolonged healing.

HISTORY

Kustenar, in 1896, was first to advocate a transverse incision, but this author cut only the skin transversely. Three years later Maylard used a transverse incision with a vertical incision in doing a gastrostomy. Both wounds healed, but the accompanying vertical incision developed a hernia.[4] In 1907, after a careful anatomical and physiological study of the abdominal wall, Maylard advocated the transverse incision for all abdominal surgery.[5] Though many modifications of Maylard's original technique have been advocated, they have little to recommend their use, and in some instances are based on unsound anatomical and physiological principles. We have employed the incision originally described by Maylard.

ANATOMY

That the transverse incision is sound anatomically will be pointed out by briefly reviewing the structure of the anterior abdominal wall. This region is composed primarily of three thin flat muscles which encase the abdominal contents in a cylindrical manner. These muscles are from without inward; the external oblique, the internal oblique and the transversus abdominis. The fibers of the oblique muscles run diagonally while the fibers of the transversus course directly across the abdomen. The fleshy bellies of these muscles do not extend forward beyond the edge of the rectus muscle. At or about this point the layer becomes fibrous and the muscle is then represented by a broad aponeurosis. Superior to the midpoint between the umbilicus and pubis the aponeurotic fibers separate at the edge of the rectus muscle to enclose that structure and meet in the mid-line with those of the opposite side to form a firm fibrous avascular band, the linea alba. It must be recalled that in the lower one-third of the rectus abdominus the posterior aponeurotic enclosure of the rectus muscle is lacking, since it is reflected anteriorly.

The nerve supply for these several muscles are the lower six intercostals together with the iliohypogastric and ilio-inguinal nerves. In the upper abdomen the sixth and seventh nerves course obliquely upward, in the mid-portion the eighth and ninth almost transversely, and in the lower abdomen the remaining ones course obliquely downward. These relationships are significant. Since it is a fundamental principle in surgery to avoid nerve injury, the direction of the transverse incision must follow the course of the underlying nerves. Specifically, incisions within two inches of the ensiform cartilage must course obliquely upward, paralleling the costal margin, while incisions within two inches of the pubis are directed downward. The remaining portion of the abdomen may be cut by directly transverse incisions.

The abdominal wall derives its blood supply from several sources which form rich anastamoses, particularly in the lateral portions. There are few vessels in the mid-line and the linea alba is almost evascular.

In a transvere incision, therefore, many more blood vessels are incised than in a vertical incision, but this is an indication that the wound will have better nutrition and therefore better healing.

The rectus muscles do not extend uninterruptedly from origin to insertion, but are divided into segments by four transverse bands of fibrous tissue. These bands are intimately adherent to the anterior layer of the rectus sheath. They are arranged as follows: One at the level of

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the ensiform cartilage, the second between that point and the umbilicus, the third at the umbilicus, and the fourth between the umbilicus and the symphysis pubis.

PHYSIOLOGY

Contrary to popular belief, the rectus muscle, which runs longitudinally in the abdomen, does not play the chief role in the production of increased intra-abdominal pressure. Increased intra-abdominal pressure is due to the contraction of the flat muscles, the external and internal oblique and the transversus abdominis. The combined pull of these muscles is lateral, in the direction of the previously described aponeurotic and muscular fibers which, incidentally, is in the direction of the nerves. The muscle pull has been estimated by Sloan[6] as being between 30 and 50 pounds. With the above facts in mind it may readily be seen that any longitudinal incision will have at least 30 pounds of energy applied uninterruptedly toward wound disruption. With a transverse incision the diametrically opposite situation exists, that is to say the muscle pull aids in closing the incision. Hence it is immediately evident that the transverse incision aids the surgeon in his attempt at wound closure while the longitudinal incision is devoted to testing the surgeon's suture skill and the quality of his material.

TECHNIQUE

The transverse incision can be used in opening the abdomen for any particular surgical indication. The line of incision must conform with the direction of the nerve fibers as was previously pointed out. In other words, in the extreme upper abdomen the direction of the incision is curvilinear with the concavity directed downward, while in the extreme lower abdomen the incision is of similar type with its concavity directed upward. Between these two extreme positions the various incisions become progressively more transverse until within two inches of the umbilicus a perfectly straight transverse incision is used.

The incision is carried directly through the skin and the entire abdominal wall, including the peritoneum, without separation of the various layers or separation of the peritoneum from the posterior fascial sheath of the rectus muscle. Separation of any of these layers is conducive to the formation of postoperative hematomas and serum pockets. With a well placed incision exposure is more than adequate for the execution of the desired surgical procedure.

The closure of this incision has been discussed at great length in the literature. Maylard, in his original article, decries the fact that the closure is often too tedious to be used in particularly poor operative risks. We cannot substantiate this claim. In fact, it has been our experience that if necessary, the wound can be closed with even less effort than a longitudinal incision. In one case that through-and-through sutures alone were used, the healing was not only satisfactory without postoperative herniation, but the skin scar of hair-line proportions, as is the case with careful layer closure of the wound.

In so far as suture material is concerned we have used both the silk and the catgut techniques, as practiced and advocated in this day, with equally good postoperative results. No effort is made to suture the rectus muscles. They do not retract as would be imagined and closure of the fascial layers is sufficient to give good approximation. The muscle heals with a transverse fibrous scar appearing very much like a linea transversa.

DISCUSSION

Perhaps the outstanding advantage of this incision is the almost total lack of postoperative herniation. There have been reported in the available literature some 738 cases of transverse incisions (cases in which the rectus muscle was cut transversely) with an incidence of hernia of less than 1.0 per cent. We have experienced no hernias in our series of cases in the past one and one-half years. In so far as the hernial incidence in the longitudinal incision is concerned, it has varied throughout the literature in the neighborhood of 10 per cent to 12 per cent[2].

It is the concensus of opinion of several observers that there are many less adhesions to the abdominal wound when a tranveres incision has been used and this fact was well brought out in an experimental study by Quain who found that injury to the intercostal nerves was conducive to the formation of adhesions to the inner surface of the abdominal wall.[7]

An outstanding feature of the transverse incision is the hair line scar which results. This is so noticeably different from the spreading scars of the vertical incision that even the patients comment on it. While a good cosmetic result is in itself not important in this region, it is felt that it is an indication of more complete healing.

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The Endometrial Biopsy in the Diagnosis of Unruptured Tubal Pregnancy

WYNNE M. SILBERNAGEL, M.D., ROSWELL S. FIDLER, M.D., AND OLAN P. BURT, M.D.

THE diagnosis of unruptured tubal pregnancy may be a very difficult problem. In some cases it is not advisable to wait for the completion of one of the biological pregnancy tests or to subject the patient to exploratory surgery without a definite diagnosis. However, the danger of rupture of the tubal pregnancy increases with any delay in arriving at such diagnosis. The various skin pregnancy tests, including the colostrum cutaneous test,[1] are not sufficiently accurate to be of value as diagnostic procedures. The endometrial biopsy as an aid in diagnosis of two cases of tubal pregnancy was reported by Mishell.[2] This procedure is suggested as a possible confirmatory procedure in cases of suspected tubal pregnancy.

According to Taussig,[3] the endometrium undergoes marked changes while the fertilized ovum is passing through the tube. During this week the stromal cells of the endometrium begin to assume the characteristics of decidual cells. The location of the tubal pregnancy affects the degree of this decidual reaction. This reaction is more marked on the side of the tubal implantation. The decidual changes in the endometrium become distinct in the entire uterus by the end of the fourth week[4] and are most marked when the pregnancy is situated in the isthmus of the tube.[5] Complete diagnostic reliance should not be placed upon the endometrial biopsy. It should be used solely as a diagnostic adjunct after a complete history, thorough physical examination, and the necessary laboratory examinations have been obtained.

The endometrial biopsy was used as a diagnostic aid in three cases of suspected unruptured tubal pregnancy. All of these tubal pregnancies were situated near the isthmus of the tube. The microscopic findings, obtained on frozen section examination, were sufficiently informative to warrant the diagnosis of extra-uterine pregnancy. Fixed tissue sections were also prepared and studied after operation. The diagnosis was verified by operation and the fixed tissue sections were in agreement with reports of the frozen section.

CASE REPORTS

Case No. 1.—C.T., age 30, was examined on December 12, 1941. Last menstrual period was on November 9, 1941. On December 16, 1941, she began having a slight bloody discharge from the vagina, with pain in lower right abdominal quadrant. Nipples had been tender one week. Bimanual examination revealed tenderness in lower right abdominal quadrant with a mass adjacent to uterus. There was no pain on motion of the cervix. The uterus was 7 cm. in depth and an endometrial biopsy was removed. The blood count revealed Hbg. 80 per cent, R.B.C. 4,180,000 W.B.C., 13,600 with 89 polys and 11 lymphocytes.

Frozen section examination of the endometrial biopsy showed a typical decidual reaction with absence of chorionic villi.

At time of operation a small mass was found in the right tube just external to the isthmus and a right salpingectomy was done. The postoperative course was uneventful.

Pathological examination revealed a fallopian tube 6 cm. long and 14 mm. in widest diameter. Just external to the isthmus was a darkly discolored fusiform enlargement 2 cm. long. On cut section through the fusiform enlargement the wall was thin, edematous and intact. The lumen was filled with organized type hemorrhagic material, in the central portion of which was a small embryonic cavity lined with a grayish tissue. Microscopical section showed the mucosa replaced by syncitial cells, hemorrhage and many young placental villi.

Case No. 2.—T.V., age 22, was examined on November 5, 1941. The last menstrual period was on September 30, 1941. On October 24, 1941, there was a dark red vaginal discharge and a few blood clots. For a period of one week the bloody vaginal discharge present was thought to be menstrual bleeding. On November 3, 1942, patient became quite dizzy and there were lower abdominal cramps. Bimanual examination revealed a soft uterus and a mass in right adnexal region. There was pain in right side on motion

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of the cervix. The uterus measured 7.5 cm. in depth and an endometrial biopsy was obtained. The blood count revealed Hbg. 72 per cent R.B.C. 3,520,000; W.B.C. 17,200 with 85 polys, 14 lymphocytes and one eosinophile.

Frozen section examination of the endometrial biopsy revealed a decidual reaction with the absence of chorionic villi.

At operation a mass was found in the right tube at the isthmus. A right salpingectomy was done. The postoperative course was uneventful.

Pathological examination showed a fallopian tube measuring 9½ cm. in length and 3½ cm. in width. The tube was darkly discolored and firm. On cut section it was found filled with a blood clot and grayish placental type tissue attached to the thin wall. An embryonic cavity was identified at the isthmus and contained an embryo measuring 8 mm. in length. Microscopical section showed placental villi throughout the blood clot and syncitial invasion of tubal wall.

Case No. 3.—C.S., age 27, was seen following admission to hospital on August 13, 1941. The last menstrual period was on June 11, 1941. On July 10 and 11, 1941, she had slight brownish vaginal discharge with left lower abdominal pain and abdominal cramps. On August 11, 1941, there was bright red bleeding from the vagina, severe cramps with lower abdominal and rectal pain. Bimanual examination revealed a soft uterus with a mass in the lower left abdominal quadrant. The Hbg. was 76 per cent R.B.C. 4,240,000, W.B.C. 5930 with 63 per cent polys, 36 lymphocyte and one eosinophile.

An endometrial biopsy was obtained which showed a decidual reaction and a subsequent curettage showed no placental villi.

Upon opening the abdomen a mass was found in the left tube just distal to the isthmus. A salpingectomy was done. The postoperative course was uneventful.

The tube measured 7½ cm. in length and 8 mm. in diameter at its distal portion, and 20x18 mm. at the uterine end. In this portion, it was darkly discolored, and on one surface showed a point of recent perforation measuring 8x6 mm. In this area, the tube was firm and infiltrated, and upon cut section showed the replacement of the mucosa by decidual reaction containing a central embryonic cavity measuring 7x5 mm. The embryo itself could not be identified. Microscopial sections of the fallopian tube showed a replacement of the mucosa by a syncytial reaction including many placental villi and a large amount of hemorrhage.

THE ENDOMETRIAL BIOPSY

The endometrial biopsy, removed from the high lateral portions of the endometrium during tubal pregnancy presents a typical picture. Upon frozen section, stained with polychrome vital stain, this compact layer of decidual cells appears as a solid sheet or plaque of large pale polyhedral cells which appear crowded and packed so that there is usually a slight over-lapping of the cell margins. This arrangement is quite uniform and the appearance is that of a "slate roof". Nuclei are not prominent with this staining. Penetrating this orderly arrangement are wide vascular spaces which to the casual observer might appear as villous structures but closer inspection shows the endothelial lining and blood cell content identifying them as dilated capillaries. A slight amount of hemorrhage may occasionally disrupt this regular cellular pattern. Glands are totally absent and the finding of endometrial glands is a finding against the diagnosis of tubal pregnancy. Villi are, of course, absent and their presence would indicate a uterine implantation.

After fixation and routine sectioning of such biopsies the microscopical pattern is changed. Fixation produces a slight degree of separation of the decidual cells so that the cytoplasm becomes more dense and the intracellular spaces are apparent. The nuclei become oval to vesicular and are more distinct than in the frozen preparation. The usual picture of decidual endometrium, without villi or glands, is then presented and the characteristic crowding of cells as seen in frozen section is lost. For this reason the frozen section is to be preferred and is more characteristic in demonstrating the decidual reaction of extrauterine pregnancy.

DISCUSSION

Physiologically in tubal pregnancy there is a decidual reaction of the endometrium analogous to the decidual transformation of the endometrium in intrauterine pregnancy. This consists of the transformation of normal stromal cells of the endometrium into large oval and polygonal cells with pale staining vesicular nuclei. These cells appear first in the superficial compact layer of the endometrium during the premenstrual phase, and the development of this uterine decidua continues during the progress of the tubal pregnancy. The relatively large number of these stromal cells in the compact layer produces a thickened decidua which appears microscopically as large plaques of cells. The endometrial glands which are at first widened and exaggerated from the late differentiative phase become flattened beneath this solid layer and largely disappear. Continued growth of the endometrial capillaries produce abundant venous channels throughout the decidua. It is these channels which produce the early uterine bleeding associated with the necrosis of the decidua upon the death or abortion of the tubal pregnancy.

Failure of the endometrium to assume a decidual reaction in early extra-uterine pregnancy has been reported.[6] The absence of decidual response to some tubal pregnancies may be explained as caused by endometritis which paralyzes the cytogenic cells and prevents them from responding normally to the hormones of pregnancy.[7]. Decidua-like reactions of the endometrium in the absence of intra or extrauterine pregnancy have also been reported.[8] We did not find this in a series of 1450 endometrial biopsies.

It has been suggested that an endometrial biopsy should not be done on patients in whom there is the slightest suspicion of intrauterine pregnancy. We have obtained endometrial biopsies in six cases of unususpected intrauterine pregnancy in our series of 1450 endometrial biopsies without interrupting gestation. Sturgis[9] has obtained seven endometrial biopsies in intrauterine pregnancies without interrupting gestation. As the site of nidation in 90 per cent of intrauterine pregnancies is in the central area of the anterior or posterior walls of the uterine cavity these areas should be avoided in obtaining the biopsy.[10]

Since the location of the tubal pregnancy affects the degree of decidual reaction in the uterus, the biopsy should be taken as near as possible to the suspected pregnancy which would be in one of the uterine horns.

CONCLUSIONS

1. The clinical diagnosis of unruptured tubal pregnancy, verified by operation, was aided by the frozen section examination of endometrial biopsies in three cases.
2. Endometrial biopsies should be obtained from the uterine cornua.
3. The decidual reaction may be prevented by endometritis.
4. An endometrial biopsy should be obtained as a diagnostic adjunct in cases of suspicious extrauterine pregnancy.
5. An endometrial biopsy with immediate frozen section examination of the tissue is a simple, safe, and rapid diagnostic procedure.

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Histaminase in Treatment of Urticaria and Other Dermatoses

Although numerous reports concerning the use of histamine in the treament of various allergic diseases have appeared since our publication, those of Knoll and Beinhauer, Forman, Baker, Altose, and Goldberg are of special interest to the dermatologist. After thorough study, Knoll and Beinhauer concluded that the syndrome of anaphylaxis in guinea pigs was unaffected by pre-treatment with histaminase, and that intracutaneous wheals produced by histamine in normal, as well as allergic persons, were not altered by the previous administration of histaminase.

We have continued the use of histaminase in various dermatoses since our report in 1939, and can now add the data given in the table below:

Disease	No. of cases	Comment
Urticaria	35	21 clinically cured 14 unimproved
Acne vulgaris	7	No cases appreciably improved
Light sensitization dermatitis	1	Much improvement
Dermographism	2	No change
Atopic dermatitis	11	No improvement

In all of the cases of urticaria which did not improve, the drug was continued for one month, and in acne for two months. In the "cured" cases of urticaria, the time varied from four days to four weeks. The dosage varied from 60 to 120 histamine-detoxifying units daily (one unit represents the quantity of histaminase which is capable of detoxifying 1 mg. of histamine hydrochloride during twenty-four hours at a temperature of 37° C.).

As in our first group of cases of urticaria, those selected were of relatively long duration, and in most instances had proved refractory to the usual therapeutic measures. From personal experience with histaminase in the treatment of urticaria and study of the reports of other observers, it seems justifiable to state that the drug is of value in certain cases of this disease. Two-thirds of our cases to which histaminase was administered obtained satisfactory results.

Since the number of our cases was so small we were unable to draw definite conclusions concerning the value of the drug in the treatment of the dermatoses mentioned, although we believed that histaminase was a useful adjunct to the treatment of urticaria, since our cases were of relatively long duration and had, in most instances, proved refractory to the usual therapeutic measures.—Carl W. Laymon, M.D., Minneapolis, Minn.; Minn. Med., Vol. 25, No. 6, June, 1942.

The Treatment of Psoriasis

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PSORIASIS is one of the skin disorders which physicians in general practice are called upon to treat frequently. The process is an inflammatory one, characterized by brownish red to red papules (punctate and guttate lesions), circumscribed plaques, or even very large areas covered with silvery white, overlapping adherent scales, as in inveterate psoriasis. The scales resemble sheets of mica. When finally removed, fine bleeding points are revealed in the underlying inflamed skin. Usually the lesions are symmetrical in distribution. While any part of the body surface may be involved, the common locations are the extensor surfaces of the knees, the shins, the extensor surfaces of the elbows and forearms, and the scalp. The face fortunately is spared in most cases although not always. Not infrequently the nails are involved and show either minute pin point depressions (so called stippling) or more pronounced changes, such as transverse ridges, or heaped up thickening. Rarely they are actually broken away.

The disease may be acute, but it is usually chronic and protracted. When the skin has been cleared up after faithful and persistent treatment, long remissions may ensue, but recurrences are almost invariable.

CAUSE IS NOT KNOWN

Unfortunately the cause is not known. While many theories have been advanced, including bacterial or fungus infection, metabolic disturbance, and more laterally, endocrine or vitamin deficiencies, none has been adequately confirmed, although much investigative work has been done. There is no evidence that the disease is transmitted from one person to another by contact, but the tendency to it is probably hereditary.

The only internal medication of proved value is arsenic. This may be given in the form of Liquor Potassii Arsenitis, beginning with a dose of three drops after each meal, increasing the dose by one drop until about 15 drops are being taken at a dose, provided no toxic symptoms are observed. Wise and Sulzberger state that when the drug proves beneficial, a maintenance dose of from 5 to 10 minims may be sustained for a period of from two to three months.

Intramuscular injections have the advantage of permitting closer observation by the physician; the disadvantage of requiring more frequent visits. The following formula is often employed:

Rx	Sod. Arsen. Exsic.	2.0
	Phenol Liq.	1.0
	Aq. Dest. Steril. q.s. ad	100.0

Dispense in sterile bottle with sterile rubber dam top.

Sig. To be injected intramuscularly by the physician, beginning with three minims, increasing dose each day by 1 minim until 25 to 30 minims is given, when treatment is stopped.

Arsenic has a cumulative propensity, so its administration should be under the physician's supervision. Fowler's solution should be prescribed only with a "non repetatur" injunction upon the pharmacist, to prevent self-medication. While arsenic is being administered in any form, toxic symptoms, such as nausea, intestinal cramping or looseness of the bowels, swelling of the eyelids, or itching and dryness of the palms, should lead to prompt discontinuance. The efficacy of dietary control is debatable, some authorities directing limitation of fats, others of proteins.

In all cases, reliance must be placed on topical remedies. While none is specific, the most effective are those which employ detergent or stimulating agents. These include salicylic acid, iodine, ammoniated mercury, chrysarobin, sulphur, and various tars. Of each drug differing strengths should be used depending on the character and chronicity of the eruption. The acute outbreaks should be treated mildly; inveterate thickened lesions will require strong concentrations of the more powerful agents. The location of the eruption also influences the choice of applications and the strengths to be employed. Greater concentrations on the scalp; weaker strengths must be used on the skin over the genitals.

Of all topical remedies probably the most efficient is chrysarobin but it has the great disadvantages of staining and of often being unexpectedly irritating. It should never be used on the face or scalp because of staining. If even a trace is carried accidentally to the eyes a severe conjunctivitis results. One should start with weak concentrations, such as 1 per cent, and increase gradually if well tolerated by the skin, up to 10 or even 15 per cent in a suitable ointment base, such as lanolin and petrolatum. Indeed, the precaution of beginning with low concentrations should be observed with all the remedies recommended. A drug of reducing action and similar chemical structure is anthralin (dihydroxyanthranol). The concentrations employed are about one-tenth those used for chrysarobin. Ointment concentrations of one-

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Dr. Cummer was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

tenth to one per cent are marketed by Abbott Laboratories.

A most efficacious remedy in inveterate psoriasis is known as Dreuw's ointment. There are several modifications of the formula. One is as follows:

Rx	Acid. salicyl	5 - 10 per cent
	Chrysarob	5 - 10 per cent
	Ol. bet. empyr. rect.	5 - 10 per cent
	Sapo. moll. med.	25 per cent
	Adipis lan. q.s. ad	100 per cent

In dispensary practice we have found that an excellent prescription for routine use is one containing from 5 to 10 per cent ammoniated mercury and from 3 to 6 per cent salicylic acid, made up in a base of equal parts of lanolin and petrolatum. When large areas or numerous lesions are being treated, the patient should be observed for signs of hydrargyrism (salivation, spongy gums, looseness of the bowels, etc.), although the tendency to this does not seem great, even in rather extensive cases and after long usage.

For many years tars have been almost a sheet anchor in topical therapy. Efficient preparations are those containing crude coal tar, from 5 to 10 per cent, in zinc oxide ointment. In my experience the tar distillate ointments have not been nearly as effective. Oil of cade may be used in similar strength. Most of the tars have the disadvantage of pungent and unmistakable odor. With oil of cade this may be overcome somewhat by prescribing oil of cadeberry (Muth's). Sulphur also is helpful, in strenth from 5 to 10 per cent, although there is a tendency to irritation of the surrounding normal skin after long continued application.

When the scalp is involved, patients often complain that the use of greasy ointments is most distasteful. Therefore the active ingredient should be combined in a base more readily washed out, of which there are several on the market. Aquaphor (Duke Laboratories) and Hydrosorb (Abbott's) are examples.

INDIVIDUAL SUSCEPTIBILITY

Since individual susceptibility can never be forecast except with some sort of test, it is well to direct the patient to try the effect of any new application on a limited area of the skin before it is used over large body surfaces.

Eruptions of generalized and universal psoriasis have responded better to the tar bath of Goeckerman and O'Leary than to any other treatment so far introduced. The entire surface of the body is anointed with a two per cent ointment of crude coal tar at night. On the following morning this is removed with olive oil, leaving a thin film on the affected surfaces, and the entire body is exposed to ultra-violet radiation. Treatments are given daily. For generalized eruptions, hospitalization is almost necessary. The treatment may be modified for smaller areas. Recently a single patch of inveterate psoriasis which had been singularly resistant to many forms of treatment cleared up rapidly after painting the area with Liquor Carbonis Detergens, (Liquor Picis Carbonis N.F.) following this with ultra-violet radiation, the treatment being repeated at one to two-day intervals.

The efficacy of Roentgen ray therapy is undeniable. If it has been employed before, especial care must be taken not to go above the limit of safety. The lesions seem more resistant after previous radiation. The very danger of this form of treatment is its effectiveness, for many patients demand repetition because of the saving in labor to themselves and the avoidance of unpleasantly greasy ointments. While fractional radiation can be used safely by an expert endowed with a respect for the skin and a knowledge of the danger of over-treatment, it should never be employed simply because an X-ray machine is available with an operator to pull the proper switches, or in the absence of a complete history of prior treatment.

In some obdurate cases, it has been found that a sojourn in a sunny warm southern climate with sun-bathing effects prompt improvement.

PRACTICAL POINT IN TREATMENT

A practical point in treatment, well worth remembering, is that the use of strong local applications in a patient suffering from an acute attack still in the process of eruption, is distinctly contraindicated. Acute exacerbation may result, followed at times with exfoliative dermatitis. An acute outbreak should be treated with the mildest sort of applications, such as boric acid in a base of cold cream ointment, or a mild (2 to 3 per cent) salicylic acid ointment, until it has stabilized itself.

Occasionally psoriasis is pustular; happily this is rare. The body may be almost covered, or the pustular eruption may be seen largely on the palms and soles. It may be accompanied by arthropathy. Hospitalization may be required. Wet dressings of potassium permanganate (1:5000) are helpful.

It is well to inform the patient frankly that psoriasis has a tendency to recur, but that remissions seem to be longer when an outbreak has been completely cleared up.

Primary Tuberculosis Infection

The discovery of a primary infection in a child should not condemn it to a life of chronic invalidism, but should lead to the examination of its contacts with the expectation of the discovery of a source of infection, the successful handling of which will protect the child from any consequences of its infection, and possibly save the life and health of many other persons.—G. A. M. Hall, M.D., British Jour. of Tuber., July-Oct. 1941.

Unguentum Aluminii Stearatis

MARTIN H. FISCHER, M.D. AND HARRY LOWELL, M.D.

THERAPEUTIC employment of the salts of aluminium especially in surgical dressing, has declined steadily since the turn of the century. We have felt this a loss, for the desiccant, analgesic and bacteriostatic effects of aluminium are definite and obtainable at concentrations hardly harmful to the cells of the host. There is little question that aluminium hydroxide, for example, if producible in its gelatinous form (as a finely dispersed hydrate) while dehydrating, lymphogogue and bacteriostatic, is without harmful action upon the tissues themselves. Not, however, if the aluminium salt is more highly concentrated as in its "solutions" (like those made of the *commonly available* mixtures of aluminium subacetate with water which yield upon hydrolysis only a coarse precipitate of aluminium hydroxide which is usually filtered off to leave for wet dressing, a weak solution of acetic acid).

In surgical situations (any of the ordinary high temperature burns may be taken as first example) which desire or permit of a surfacing with a fat (castor, linseed oil) or one of the paraffins, the effects of aluminium may be obtained if use is made of the fact that *aluminium soap solvates* are easily produced through proper admixture of the two.[1]

The following describes the principle of the preparation of such unguents, one consisting of a low melting point paraffin with aluminium stearate being taken as example. How any other soap of this base (or of any other base of which the therapeutic effects may be desired, as mercury) or how any true fat or a heavier or still lighter paraffin may be used, as the physician may deem best, has often been described.[2]

Where a market preparation of aluminium stearate sufficiently pure is available, it is only necessary to sprinkle 3 or 5 per cent thereof upon the necessary volume of (USP) liquid petrolatum and allow the white powder to "soak" and settle into the paraffin oil in the cold. The soap "swells." The mix is now heated (preferably upon an electric heater, though with care an open flame may be employed) until all the stearate has dissolved to clear solution *in* the paraffin. Upon cooling, either at room temperature or in a refrigerator, the system "jellies" into an opalescent or glass-like "inverse" solution of the paraffin in the soap.[3] This is the therapeutically desired product.

Non-toxic paraffins of every consistency have long been available. Where medically pure aluminium soaps are not, the following outlines how they may be made, the preparation of aluminium stearate being taken as example:

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Potassium stearate is first produced by adding in successive fractions to each gram molecule (284 grams) of stearic acid, liquefied in a three liter flask in a water bath, two liters of half-normal potassium hydroxide. Neutrality is checked by the addition of a few drops of an alcoholic solution of phenolphthalein which *at this high temperature* should yield a faintly pink color. The total mix should otherwise be water clear. While still warm, it is poured with quick stirring into two liters of half-normal aluminium sulphate [111 grams of $Al_2(SO_4)_3.18H_2O$ made up to 2000 cc.] To make sure of complete double decomposition, an excess (10 grams) of the aluminium salt is employed. Aluminium stearate falls out as a curdy, white mass which should be kept broken up. After a rest of some hours (24) the precipitate is again broken up, allowed to settle and filtered. Whereafter it is quickly washed in two or three changes of distilled water (to press such washing further invites too great hydrolysis of the soap). The white mass obtained is then desiccated on its filter paper in a low temperature oven.

We have employed this unguent for several years past in all kinds of burns (heat, sun, chemical), in the eczemas and dermatitides (whatever their assumed origins, especially if "moist"), in the herpetiform eruptions, the hyperhidroses and skin reactions believed to be of "fungus" origin. We have found the therapeutic application of this unguent to be easier than the maintenance of dressing in moist form even of the properly prepared (colloidal) hydrated aluminium hydroxide. And in comparative tests against tannic acid, picric acid, etc., relief of pain was quicker, scarring less, and the local evidences of "inflammation" diminished, while the general signs of "toxic" absorption were decreased.

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Tuberous Sclerosis

HARRY N. ROBACK, M.D.

PHYSICIANS occasionally encounter patients, children or adults, who are brought to them with a history of epileptic convulsions, mental retardation and skin lesions of the face in the form of sebaceous adenoma. The diagnosis of tuberous sclerosis is easily made in these cases but occasionally patients may be brought to a physician showing only one of the three mentioned symptoms. These cases are difficult to diagnose and their treatment is similarly baffling because of the various diagnostic possibilities to be considered. Although little can be offered in the way of therapy for tuberous sclerosis, the parents or other relatives of tuberous sclerotics are anxious to know about the patient's prognosis and any advice that can be given them may allay their worry. They have a severe problem on their hands and require the help of a physician in its solution.

The history of tuberous sclerosis is interesting. The first case to be recorded appears to be that of Von Recklinghausen, who in 1863 described the case of a newly-born child who had many sclerotic areas in the brain and several myomata in the heart muscle. Hartdegen, in 1881, reported the case of a two-day old child with areas of sclerosis throughout the cerebral cortex, and a number of small tumors projecting into the lateral ventricles. He suggested the term "glioma gangloacellulare cerebri congenitum" for this condition. However, Bourneville is usually given credit for the first description of tuberous sclerosis, whose reports appeared between 1880 and 1898, and it was he who named the condition tuberous sclerosis from the potato-like appearance of the sclerotic areas in the brain. He also noted the co-existence of sebaceous adenoma and tumors of the kidney. Subsequent reports mentioned the association of tumors of the heart, spleen, lungs, and retina with tuberous sclerosis. Sherlock, in 1911, proposed the name epiloia to connote the syndrome of mental deficiency, epilepsy, and adenoma sebaceum, which term is probably more commonly used in England than in the United States. That the condition is more common than may be assumed in some quarters may be gathered from the fact that Critchley and Earl[1] reported 29 cases in 1932.

Tuberous sclerosis is supposed to be more common in European Countries than in the United States. The disease is supposed to be more common among the lower classes of the community and occurs in Jews as well as in Gentiles. The family history frequently presents evidence of tuberous sclerosis of some abortive form of the syndrome among the siblings or progenitors. Epilepsy and alcoholism are common in the antecedents of patients with tuberous sclerosis. Although syphilis used to be blamed for the disease, most writers now agree that it has no etiologic relation to tuberous sclerosis. According to Yakovlev[2] tuberous sclerosis is generally admitted to be a congenital malformation, originating in early fetal life—possibly a defect in the germ plasm—and leading to a blastomatous transformation of certain elements of the ectodermal layer of the embryo. The condition may be considered as a malformation of neoplastic type. The malformations in the central nervous system and elsewhere in the body are usually multiple. Bielschowsky spoke of the condition as "blastomatosis disseminata".

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SYMPTOMATOLOGY

Tuberous sclerosis is characterized by the triad: mental deficiency, epilepsy, and sebaceous adenoma. The signs and symptoms usually appear in infancy or early childhood, and it is believed that the earlier the onset, the more rapid the course. However, the disease may remain latent for years and not manifest any symptoms until later childhood or puberty. Usually the first abnormality is developmental retardation, such as delayed walking, talking, and dentition. Cutaneous lesions make their appearance usually within the first decade, and occasionally may not appear until puberty, to reveal the significance of the coexistent epilepsy and mental deficiency. The course is rapidly downhill after puberty, and according to Critchley and Earl, death usually takes place in the second decade from cachexia, pulmonary disease, or status epilepticus.

Neurological examination is at times entirely negative; more often, however, minor anomalies are demonstrable in the motor system. The low grade of the mental state usually precludes satisfactory examination. Monoplegia, hemiplegia, paraplegia, and tetraplegia are occasionally encountered. Speech is usually grossly impaired in

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Submitted July 24, 1941.

well marked cases, and some patients are entirely mute. Stigmata of degeneration are usually demonstrable in the lower grade patients. The epileptic convulsions may be of grand mal, petit mal, or Jacksonian type, and equivalents are not rare. The predominating psychiatric picture is that of mental deficiency and in some cases a superimposed primitive type of catatonic schizophrenia.

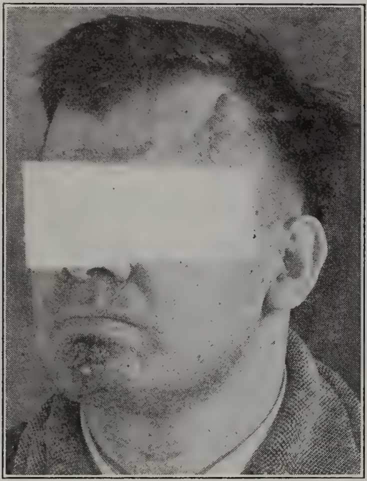

Fig. 1. Facial lesions typical of tuberous scelerosis.

According to Messinger and Clark[3] involvement of the retina in cases of tuberous sclerosis escaped notice until 1921 when Van der Hoeve described several cases of tumors of the retina, which he called phacoma, meaning "mother spot". These tumors, as seen with the ophthalmoscope, appear as white or gray oval or circular spots in the retina away from the disc.

The term sebaceous adenoma was suggested by Pringle in 1890, who described the clinical and histological characters of the disease. Sebaceous adenoma comprises a nodular rash of red, yellowish-red, or brownish color, appearing extensively over the face, showing itself first in the nasolabial fold, later spreading so as to cover entirely the nose and the middle of the cheek over the infra-orbital regions in a butterfly-shaped area. The rash later spreads laterally, but rarely shows itself inside the frontier of the naso-labial fold, except to appear on the chin (Fig. 1). Occasionally a few nodules are seen in the temples or on the brow. The rash consists of numerous papules which fade on pressure to a great extent, but may not do so entirely. In the center a minute telangiectatic point, or even a fine network of injected capillaries may be present. In certain areas, for instance, over the tip and dorsum of the nose, the papules become confluent and form a smooth plateau or red, shiny appearance, interspersed at times with telangiectases. Subjective symptoms are rare, although the rash may be painful in cold weather. Other cutaneous abnormalities may consist of small flattened fibromata scattered over the trunk, particularly on the back. Occasionally numbers of miliary fibrous tubercles are seen over the trunk. These are slightly raised papules, smaller than a pin's head, and indistinguishable from the surrounding skin in color, and resemble "goose-flesh". Another cutaneous lesion, the shagreen patch (Fig. 2), an uneven thickening of an area of skin, is occasionally seen over the lumbo-sacral regions. The patch is usually single and its color is that of the surrounding skin. Pigmented areas are also seen; they are of two types: 1. diffuse bronzing of wide regions of the skin, and 2. "cafe au lait" patches, which are circular or oval areas of brown pigment. At times a vitiligo-like arrangement is found most commonly over the trunk, an area of pigmentation being abruptly succeeded by an area of abnormal whiteness. Pigment may disappear from the hair in places. In some patients clusters of pedunculated dermal tags are found over the neck or shoulders. Naevi are occasionally encountered.

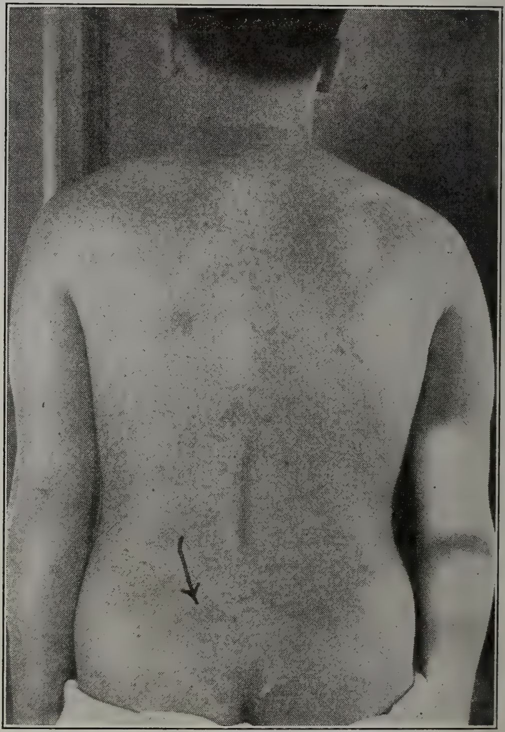

Fig. 2. Arrow indicates shagreen patch.

Some recent articles stress the importance of abortive tuberous sclerosis, in which the external manifestations may be limited to a few pigmented naevi, or a small patch of shagreen, and even the symptoms may be absent and the epilepsy, with or without mental deficiency, may be the only manifestation of the disease. In such cases the recognition of tuberous sclerosis during life is practically impossible, and the condition is often disclosed unexpectedly at autopsy in cases of chronic epilepsy.

Chritchley and Earl list the following incomplete forms of tuberous sclerosis:

1. Adenoma sebaceum alone.
2. Adenoma sebaceum with epilepsy, but no mental change.
3. Adenoma sebaceum with symptoms of cerebral tumor.
4. Visceral tumor alone, including retinal tumor.

Some writers have called attention to the association between tuberous sclerosis and Von Recklinghausen's disease. There are certain clinical similarities between the two conditions, namely, the cutaneous anomalies, epilepsy, and mental disorder. However, Critchley and Earl feel that the similarities between the two diseases have been over-emphasized.

PATHOLOGY

The characteristic features of tuberous sclerosis in the brain are the presence in the convolutions of numbers of whitish, slightly prominent areas. These may occur in any part of the cerebral hemispheres, and there is no apparent area of predilection. The larger areas may extend over two or three adjacent convolutions and may affect the depth of the sulci, as well as the summit of the gyri. On palpation of the hemispheres, the affected regions feel firm, almost like cartilage. At times some of the larger sclerotic areas are umbilicated. Sometimes the sclerotic nodules degenerate in their centers so as to form small cysts; more commonly minute calcareous fragments are encountered within the foci. Usually the firm, white areas are limited to the cerebrum, but several cases have been reported in which nodules were found in the cerebellum, medulla, and spinal cord.

In the walls of the third and lateral ventricles immediately beneath the ependyma, small irregular projections are found, arising usually from the thalamus. These have the appearance of grapes or "candle gutterings".

The microscopic appearance of the sclerotic nodules is practically characteristic of the disease, namely, the presence of monster cells. These are most numerous in the depths of the sclerotic nodules, although they may also be found in the cortex away from the sclerotic regions, and they have also been noted in the cerebellum, medulla and spinal cord. The nature of these monster cells has aroused much controversy as to whether they are derived from the glia, or from the ganglion cells, and accordingly have been divided into two types 1. Cell of ganglion type; and 2 cell of glial type. The ganglion or neuronic cell type is well demonstrated in the silver nitrate stains. As a rule these cells occur in clusters of three or more and may be surrounded by some densification of the glia. Considerable variability exists in the character of the processes; sometimes they are short and thick, and at times a stem arises which quickly breaks up into finer branches. The blood vessels in the sclerotic regions may be considerably dilated, and may attain sinusoid proportions. Deposits of calcium or hyaline are often seen, especially in the ventricular nodules.

At times glial proliferation assumes such a localized and excessive type of overgrowth as to take on the appearance of a tumor. Such a condition appears exclusively in the intra-ventricular growth and may be sufficiently large to increase the intra-cranial pressure. According to Globus, these tumors belong to the group of spongioblastoma.

TREATMENT

As previously mentioned, there is little we can offer in the way of treatment for tuberous sclerosis except symptomatic relief for the epileptic convulsions and the skin lesions. Phenobarbital and sodium dilantin may be used to control the convulsions; lotions or ointments can be applied to relieve the irritating skin lesions. However, tuberous sclerosis is not only a medical problem but also a social one. If the patients are not psychotic and their behavior is tractable they may be kept at home. Frequently, however, the patients are difficult to manage at home and may be a disturbing factor to their younger siblings whereupon it becomes necessary to institutionalize the patients either in a state institution or in a private hospital for feebleminded and epileptic persons.

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Chondroma of the Tongue

Neoplasms of the tongue are common, but the cartilaginous type is very rare. The cartilage cells have rather active proliferative powers, possess amœboid properties and are readily subject to metaplastic changes. Etiological factors of tongue tumors are unknown but tongue injuries are predisposing causes. In this case the tumor caused no symptoms over twenty years. Removal of the cartilaginous tumor in most cases gives complete cure.—Joseph Johns, M.D., Ionia, Mich., Jour. M.S.M.S., Vol. 41, No. 6, June, 1942.

Every physician almost, hath his favorite disease.—Henry Fielding.

Interstitial Keratitis as a Sign of Congenital Syphilis

Report of Two Cases

LOUIS C. RAVIN, M.D.

ALTHOUGH inflammation of the cornea is a late manifestation of congenital syphilis, it may be the first really pronounced sign of the disease to attract attention. The earlier, and more frequently seen signs, such as rhinitis, mucous patches, and skin eruptions, may be relatively mild so that no particular attention is paid to them.

Interstitial keratitis, or parenchymatous keratitis, as it is sometimes called, was first described by Mackenzie in 1840. The condition was described with very accurate clinical acumen by Jonathan Hutchinson in 1860. He established with certainty the association of the disease with syphilis, especially with congenital syphilis.

INCIDENCE

Over 90 per cent of all cases of interstitial keratitis are of luetic origin. The remaining are chiefly tuberculous, leprous and allergic in origin. About 95 per cent of all cases of luetic interstitial keratitis are seen in congenital syphilis, the others occuring in acquired syphilis.

About 60 per cent of all cases occur in females. There has been no good explanation for this preponderance in females; but all statistics bear out this 60:40 ratio. About 75 per cent occur between the ages of five and twenty. It is relatively uncommon before the age of three or after the age of thirty.

The disease is almost always bilateral in the congenital variety; in acquired syphilis the majority of cases are unilateral. The length of time interstitial keratitis takes to become bilateral after the involvement of the first eye varies from one month to one year or even longer.

The serological tests are positive in 95 per cent of the active cases of interstitial keratitis that have not received anti-luetic treatment.

CLINICAL PATHOLOGY

Interstitial keratitis denotes an inflammation of the substantia propria of the cornea. It does not primarily involve the anterior and posterior layers. The essential destructive process is a necrosis of the corneal lamellae associated with a massive cellular infiltration mainly of lymphocytes, the cornea becoming vascularized early in the process.

In healing, deep scarring is left. This scarring interferes with the vision, depending on the intensity of the scarring, and whether or not it is in the pupillary area. A most conspicuous feature is the invasion of the cornea by new vessels. Their characteristic course and distribution can be readily seen with the corneal microscope and slit-lamp. These vessels always remain throughout life as fine, opaque lines although they cease to carry blood. This affords permanent proof of a previous attack of interstitial keratitis, and is good presumptive evidence of congenital syphilis.

Associated with the keratitis is an invariable inflammation of the iris and the ciliary body. It is this iritis and uveitis which is more severe than the keratitis, if not treated properly and promptly. Frequently the iritis and uveitis may not be well observed on account of the active corneal pathology, with its dense clouding; but we know that the iritis is actively going on, and that it must be treated.

The Author

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CLINICAL COURSE

The general clinical picture begins with severe subjective symptoms. There is pain, lacrymation, photophobia and blepharospasm. The patient can hardly keep his eyes open for fear of the light. There is usually no discharge, and the parent states that "the eyes seem to have caught cold".

On examination the injection of the conjunctiva is very evident. The vascularization can readily be seen encroaching upon the cornea. Very often there is a predominate group of vessels at one sector, which forms what is characteristically called a "salmon patch", so named because of the salmon-red appearance of this bunch of vessels. There is haziness of the cornea. This may be mild, or so severe as to completely occlude the view of the iris and the pupil. Frequently large plastic aggregations, commonly called keratitic precipitates, which are associated with the accompanying iritis, can be seen on the posterior surface of the cornea as discrete dots.

The eye continues to become more cloudy, and the vascularization becomes more pronounced. This active stage lasts from one to three months.

Presented in part at the staff meeting of The Women's and Children's Hospital, Dec. 9, 1941.

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Then follows a stage of regression, in which the symptoms subside. This stage of resolution lasts from six months to one year.

A good part of the symptoms is due to the associated iritis. This inflammation of the inner eye is largely obscured by the dense cornea. The treatment of the uveitis with mydriatics is most important in order to prevent adhesions between the iris and the lens, and possible occlusion of the pupil.

The prognosis is good if treatment is started early. It is surprising how well the entire inflammatory process clears considering how violent the inflammation and vascularization was.

CASE REPORTS

Case No. 1, D.B., a 10 year old boy, was first seen on May 8, 1941. He complained of having an inflamed left eye for the past two weeks. He had been treated during the previous three days by his family physician. Seeing no improvement, the physician referred the patient for consultation. The boy complained of profuse tearing, pain, marked sensitivity to light, and blurred vision. He had never had any similar attack. His general health had been good. There are no brothers or sisters.

Examination revealed normal vision, uncorrected, in the right eye; vision in the left eye, uncorrected, was 20/100. The photophobia and lacrymation were very evident. Blepharospasm was marked. The conjunctiva was injected; there was no secretion. The cornea was cloudy, and vascularization was completely around the cornea. There was no definite patch of blood vessels. Definite keratitic precipitates could be grossly seen on the posterior surface of the cornea. The iris could be readily seen through a slightly cloudy anterior chamber. The pupil reacted slowly to light.

The first impression was that of a severe iritis associated with keratitis. The possibility of interstitial keratitis was considered. Looking for other signs of congenital syphilis, none of the characteristic stigmata, such as Hutchinson teeth, saddle nose, saber shins, and so forth, were noted. There were a few faint scars about the angles of mouth which resembled rhagades. The patient was brought in by an aunt from whom it was not advisable to ask about the possibility of syphilis in the child's parents. A blood specimen was taken for serological tests. Atropine drops were prescribed; quinine bisulphate ointment was prescribed; hot compresses were advised; dark glasses were ordered; and the patient was told to remain at rest at home.

The blood Kahn and Kline tests were both positive. The mother was asked to come to the office. When questioned, she gave a history of being under treatment for syphilis at the present time. She had never had a serological test done on the patient. The child had been her only pregnancy. She was separated from her husband soon after the birth of the child.

The patient was referred to his family physician for anti-luetic treatment. When seen on May 28, 1941, interstitial keratitis was beginning in the right eye also. The same treatment was instituted as for the left. When last seen on December 8, 1941, both eyes were healing well; corneal scarring was diminishing; the pupils were well dilated; the iritis was quiescent, and the vision was improving.

Case. No. 2. R.B., a six year old girl, was first seen on September 17, 1941. The parents gave a history of the left eye being inflamed for about two months. The patient had received only home remedies consisting mainly of warm boric acid solution applications. The eye had been tearing, and was sensitive to light. There had been a slight secretion during the past week so that crusting of the lid margins was noted, especially in the mornings. There was no pain. Examination revealed normal vision, uncorrected, right eye; vision in the left eye, uncorrected, was 20/50. Photophobia and lacrymation were marked. The conjunctiva was hyperemic and there was a moderate muco-purulent discharge. The cornea was steamy and was vascularized completely around. Keratitic precipitates could be grossly seen on the posterior corneal surface. The anterior chamber was cloudy, the iris appeared dull and the pupil was constricted; its reaction to light was minimal.

The diagnosis rested between kerato-conjunctivitis with associated iritis, or interstitial keratitis. Further questioning of the parents revealed that the child had been born at home; that there are three older children. The mother has had one miscarriage and one still-born. The patient has been in fairly good health. She was treated for mild anemia one year ago by her family physician, who had also performed a tonsillectomy three months ago. The mother states that at no time was any blood test taken for diagnosis other than pricking of the finger for a blood count.

The patient had a watery rhinorrhea. Upon inquiry the parents stated that the child has frequent colds, in fact she seems to have had an almost continuous cold for the past year. This appeared to be the characteristic sniffles of congenital lues.

The patient was admitted to the hospital. Sodium sufathiazole drops for the eyes were ordered. Atropine drops were instilled in the eye every three hours. A blood sample was taken. Within 24 hours the muco-purulent conjunctival discharge was almost completely gone. I attributed this to the administration of sulfathiazole. The pupil dilated readily. The Kahn and Kline tests were reported positive.

Upon further questioning both parents denied any knowledge of syphilis. This child was the youngest of four children and was born at home. The other three had been born in the hospital. Examination of hospital records revealed a negative Wasserman test for all three children. There was a notation on one of the charts that the mother had been treated for syphilis in 1934. I referred the parents to their family physician, who took blood samples from both. The report of the Kahn and Kline tests was negative for the mother, and positive for the father.

The patient has been given regular weekly anti-luetic treatments. This is surprising in view of the lack of cooperation of the parents, who refuse to have blood samples taken from the other children. The mother refuses to have a spinal fluid sample taken. The eye has been treated continuously with atropine, quinine bisulphate ointment, and hot applications. When last seen on December 8, 1941, the eye was quiet, corneal scarring was diminishing and vision was improving. The right eye, as yet, is uninvolved.

TREATMENT

Obviously it is better to prevent interstitial keratitis than to treat it; the objective should be to treat pregnant mothers with syphilis. It is better to diagnose and treat congenital syphilis early and thus tend to prevent interstitial keratitis. But it is also axiomatic that once interstitial keratitis has occurred, the sooner it is treated the greater is the chance for better vision. Locally the regular and continued use of a cycloplegic is most important. Atropine 1 per cent is an ideal drug. In recent years quinine bisulphate has been advocated in helping to keep the resulting scars at a minimum. Hot compresses are beneficial and soothing.

Hyperthermia, either in the form of induced malaria, or the "fever box", helps prevent relapses. But since relapses are not very common, and this form of treatment cannot be given very practically in routine practice, it is usually confined to larger institutions in clinic patients. The anti-syphilitic treatment is best given with neoarsphenamine, in full dose in proportion to body weight, and bismuth subsalicylate in alternating courses. The treatment should be continued according to the following schedule, which was found to give the best visual results in a large series of cases reported by Klauder and Vandoren.[2]

Weeks 1 to 9: Neoarsphenamine, ten weekly doses; bismuth (soluble), eight doses, twice weekly, during first month.
" 10 to 19: Bismuth, ten weekly doses.
" 20 to 29: Neoarsphenamine, ten weekly doses.
" 30 to 39: Bismuth, ten weekly doses.
" 40 to 44: Neoarsphenamine, five weekly doses.
" 45 to 54: Bismuth, ten weekly doses.
" 55 to 59: Neoarsphenamine, five weekly doses.
" 60 to 69: Bismuth, ten weekly doses.
" 70 to 73: Rest period.
" 74 to 83: Bismuth, ten weekly doses.

It is imperative that treatment be continuous at least throughout the active stage of the disease. The administration of iodides is not recommended.

CONCLUSION

Two cases of congenital syphilis have been presented in which the diagnosis of congenital lues was made only after the onset of interstitial keratitis, the other signs of congenital syphilis having been so slight that they were not noted in previous examinations of the patient.

I should like to emphasize the importance of interstitial keratitis as a sign of congenital syphilis. It may be difficult to recognize the interstitial keratitis as such. One may assume the inflammation of the cornea to be a part of the picture of an acute iritis, or part of the picture of a kerato conjunctivitis with an associated iritis. But when seeing a youngster, or a young adult with severe eye symptoms and inflammation of the cornea, we should carefully look for other signs of congenital syphilis, and by all means take a blood sample for serological tests for syphilis.

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Renal Tuberculosis

Much progress has been made in the field of renal tuberculosis during the past few years. At the Sanatorium of the Jewish Consumptives Relief Society, in the thirteen-year period of observation (July, 1927-July, 1940), thirty-four cases of 2,130 admissions had proved renal tuberculosis, an incidence of 1.6 per cent. Thirteen cases of suspected renal involvement were not included, urological data being insufficient to substantiate the diagnosis of renal tuberculosis. Males had a greater incidence than females; 26, or 76 per cent, were males, and 8, or 24 per cent, were females. The incidence of renal tuberculosis will vary depending on the type of material under observation. Ogden found seventy-three cases which occurred in 2,925 routine necropsies on persons over one year of age, a general incidence of about 2.5 per cent. His incidence of renal tuberculosis in 300 necropsies on tuberculosus subjects was 24.3 per cent.

So-called pre-clinical tuberculosis and bilateral renal tuberculosis should be treated medically. If no real destruction has taken place, the patient should have the benefit of careful medical care and be placed in a sanatorium where he may have the advantage of supportive hygienic treatment and heliotherapy. Spontaneous healing may take place in early renal tuberculosis. If a destructive lesion supervenes during medical treatment, or as happens more often, the case originally has a destructive lesion, surgical measures should be instituted. The treatment of destructive renal tuberculosis is always surgical and nephrectomy should be performed unless the patient's general condition contraindicates this form of therapy. The body has the power of developing through general hygienic measures aided by heliotherapy a decided resistance to the action of the tubercle bacillus. Such resistance should be encouraged and raised to a maximum before surgical measures are employed.—Eli A. Miller, M.D., Denver, and Arthur Rest, M..D, Spivak, Colo.; Rocky Mountain M. Jour., Vol. 39, No. 6, June, 1942.

Carcinoma of the Biliary Papilla

A Case Record Presenting Clinical Problems

JOSEPH P. WEBB, M.D. AND RALPH JOHANSMANN, M.D.*

Case 160015. A 58 year old white male was admitted to the Cincinnati General Hospital on June 6, 1941, complaining of swelling of the abdomen.

History: The patient had been in good health until about one year before admission at which time he first noticed swelling of the abdomen. This was persistent, and was shortly followed by intermittent jaundice; however, he said that his urine had been dark-colored and his stools light-colored and loose for as long as three years. Close questioning of several relatives, none of whom lived with the patient, placed the duration of jaundice at from six months to three years. Since the onset of swelling of the abdomen there had been dull postprandial pains in the upper abdomen and rather constant dull pain in both flanks. Appetite was fair but food intake was poor because of epigastric distress which followed the ingestion of even small amounts of food. The distress was unrelated to the type of food eaten. There were several brief episodes of diarrhea with intervening constipation. Abdominal distress was sometimes relieved by purgatives. There was no history of nausea, vomiting, melena, chills, or fever. Swelling of the lower legs and feet and some shortness of breath were present for six months prior to admission. Five months before admission there was generalized itching of the skin lasting several weeks. There was gradual, but not marked, weight loss and increasing generalized weakness, but prior to admission the patient had been ambulatory except for a brief stay in another hospital about one month before.

The past history revealed that the patient had been a heavy user of alcohol for many years, consuming 10 to 20 glasses of beer daily and participating in frequent whiskey sprees. He had had malaria and diphtheria in childhood, and gonorrheal urethritis and epididymitis at the age of 28.

Physical Examination: Temperature 101°, pulse 80, respiration 20, blood pressure 116/54. The patient was poorly nourished and appeared chronically ill. There was marked icterus of the skin, mucous membranes and sclerae. There was no palpable lymphadenopathy. The pupils reacted to light and accommodation. Examination of the fundi, ears, nose, pharynx and neck revealed no abnormalities. The breath was foul and the tongue heavily coated. Many teeth were missing, the remainder carious and dirty. Movement of the diaphragm was limited. The lung fields were clear to percussion and auscultation. The heart was not enlarged to percussion. The rhythm was regular. A soft systolic murmur was heard at the base of the heart. No pericardial friction rub was heard. The abdomen was tightly distended and some subcutaneous edema was present. The superficial veins over the upper abdomen and lower thorax were quite prominent. Shifting dullness and a fluid wave were easily demonstrable. The liver was percussed 5 cm. below the costal margin but its edge could not be felt. The spleen and kidneys were not palpable. Peristalsis was normal. Rectal examination showed a moderately enlarged, firm and slightly tender prostate. No hemorrhoids were found. The external genitalia were normal. There was mild pitting edema of the feet and ankles. Neurologic examination was not remarkable.

Laboratory Data: Initial examination of capillary blood showed: hemoglobin 10 grams, red blood cells 3,380,000, white blood cells 4,800, polymorphonuclear leukocytes 68 per cent, lymphocytes 22 per cent, monocytes 10 per cent. During the hospital stay the hemoglobin varied between 8 and 10 grams, the red blood cells between 1,660,000 and 2.900,000, the white blood cells between 6,100 and 8,800. Smears showed moderate macrocytosis of the red blood cells; a hematocrit showed 26 per cent cells, mean corpuscular volume 106 cubic microns, mean corpuscular hemoglobin 37 micromicrograms, and mean corpuscular hemoglobin concentration 35 per cent. The urine was consistently dark amber, contained no albumin, sugar or acetone and only an occasional leukocyte, but gave strongly positive tests for bile and urobilinogen. The stools varied from clay-colored to medium brown, contained no gross pus, blood or mucus. Of 18 specimens examined, only one, on the twentieth hospital day, failed to give a positive test for bile, and all specimens were negative for occult blood except one on the day of death which gave a two-plus guaiac test. The icteric index was 128 on admission and thereafter varied between 64 and 190. The van den Bergh test gave a strongly positive direct with a negative indirect reaction. The blood urea nitrogen on admission was 241 and 286 mgm. per cent; prothrombin time 15 and 13 seconds (both values within normal limits); serum phosphatase 3.4 and 5.2 Bodansky units. The total serum protein was 5.5 and 8.5 gm. per cent, with alubumin/globulin ratio, 0.3 and 0.5 respectively. Two galactose tolerance tests revealed 0.8 and 4.0 grams of galactose excreted in three hours. A gastric analysis showed no free hydrochloric acid in the fasting state; following alcohol test meal 6.5° free and 18° total acid were found. Material obtained by duodenal intubation showed only amorphous sediment, a few leukocytes, and no crystals. Culture of this material yielded bacillus coli and a non-hemolytic streptococcus. The ascitic fluid was amber and slightly turbid. The initial specimen contained 87 lymphocytes and 46 red blood cells per cubic millimeter. Microscopic examination of a fixed and stained section of the sediment showed no abnormal cells.

Flat and Bucky X-ray films of the abdomen failed to show stones in the region of the gall bladder. A barium enema was negative. Examination of the upper gastro-enteric tract after the

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This is the eighth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

ingestion of barium showed slight irritability of the duodenal cap and loss of rugal pattern with some irregularity and possibly narrowing in the second portion of the duodenum.

Course in the Hospital: The patient was kept at partial bed rest. He received a high carbohydrate, high protein, low fat diet, brewer's yeast by mouth and several intramuscular injections of liver extract. In addition, he received several short courses of ammonium chloride and a number of intravenous injections of Mercupurin, but little diuresis resulted. Seven whole blood transfusions of 500 cc. each were given. Abdominal paracentesis was performed on nine occasions, a total of 30 liters of fluid being removed. Following paracentesis a firm, smooth, non-tender liver could be felt extending 6 to 8 cm. below the costal margin. In the right nipple line, apparently attached to the liver, was a rounded, slightly tender mass which was observed to become larger over a period of weeks and was thought to represent a distended gall bladder. The spleen was easily palpable 3 to 4 cm. below the costal margin. On its anterior surface there was a rounded elevation about 4 cm. in diameter which most observers interpreted as a metastatic nodule. Throughout the hospital stay the patient's temperature varied from 98° to 102° with almost daily swings of two to three degrees. At no time were chills observed. He complained of intermittent mild abdominal discomfort. He became increasingly listless, weak and irritable. Despite multiple small feedings, his food intake was poor, and his weight showed a steady fall from 140 lbs. on admission to 100 lbs. two days before death. Four days before death increasing stupor was noted, followed two days later by coma with Kussmaul breathing. At this time a pericardial friction rub was audible. The blood urea nitrogen was found to be 92 mgm. per cent and the carbon dioxide combining power 28 volumes per cent. The patient failed to respond to supportive measures, and death occurred on the 73rd hospital day.

The clinical diagnoses were: Bile-duct carcinoma, possibly associated with alcoholic cirrhosis of the liver; probable metastasis to spleen; terminal hepato-renal syndrome; terminal pulmonary edema.

Necropsy (N-41-386): Performed by Dr. Charles Cobern.

Gross Examination: The body was that of a fairly well developed, poorly nourished, deeply icteric 58 year old white male, dead 12 hours. Approximately 4000 cc. of cloudy amber fluid filled the abdominal cavity. The liver was large and firm and weighed 2200 grams. Its surface was rough and mottled green and yellow. The organ cut with increased resistance and the surfaces made by sectioning were likewise mottled green and yellow with additional scattered areas of pink. The gall bladder was thin walled, ballooned, and markedly dilated, measured 22 centimeters in length and 6 centimeters in greatest diameter, and in situ had extended downward almost to the level of the umbilicus. Approximately 220 cc. of light green bile filled the sac which was lined by a smooth green mucous membrane. Bile was readily expressed from the gall bladder through the bile ducts into the duodenum. The extra-hepatic bile ducts as well as the intrahepatic bile ducts were all widely dilated to the ampulla of Vater, the common bile duct measuring 6 centimeters in circumference. A large amount of sandy concretions and several small soft black stones, less than three millimeters in diameter, were present in the terminal portion of the common bile duct. Distal to this part there was a soft gelatinous pinkish-gray papillary growth, measuring two centimeters in diameter, which arose in the wall of the ampulla of Vater and partially filled the lumen of this structure. This growth did not appear to involve the tip of the papilla but radially infiltrated the wall of the duodenum so that a similar elevated soft gelatinous growth measuring approximately six centimeters in diameter completely surrounded the papilla. A probe was passed easily from the duodenum through the ampulla and past the growth into the dilated common bile duct. The duct of Wirsung was not identified.

The spleen was large and firm and weighed 840 grams. The surface was smooth and without nodular elevation, and was covered by an opaque gray capsule. Sectioning revealed a firm dark red pulp with accentuated fibrous and follicular markings. The pancreas was normal in size and shape but cut with moderate increase in resistance. The remaining abdominal organs presented no remarkable pathologic changes except for bile staining of the tissue.

The weight of the lungs was slightly increased and at the bases the tissue was slightly edematous, subcrepitant and congested. No fluid was contained in the pericardial sac but a very thin layer of fibrinous exudate covered the lining serous membrane.

Miscroscopic Examination: The neoplasm of the ampulla of Vater consisted of small infiltrating masses of epithelial cells arranged in solid masses and acinar formation, the individual cells varying in size and being either polyhedral or low columnar. Hyperchromatic nuclei and a few mitotic figures were evident. The neoplasm infiltrated the papilla and the wall of the contiguous duodenum involving all its layers and permeating the lymphatics. No invasion of adjacent organs and no metastases to distant organs were found. An active chronic inflammation of the mucosa, and submucosa of the peripapillary region of the duodenum was associated with this growth.

Cirrhosis of the liver was marked. There were tortuosity and increased numbers of bile ducts with increase of connective tissue and marked infiltration of lymphocytes, macrophages and polymorphonuclear leukocytes in all the portal areas. In areas an increase of connective tissue fanned out toward the central portion of the lobule. Bile stasis was marked, there being retention of bile in many bile canaliculi and in numerous liver cells and also bile pigment deposition in the Kűpffer cells and in the connective tissue throughout the portal areas. An acute inflammatory exudate consisting principally of polymorphonuclear leukocytes infiltrated the serosa and outer musculature of the gall bladder. The remainder of the wall of this sac was essentially normal. There was no residual of past inflammation.

Sections of the pancreas showed groups of lobules in which there was extensive chronic interstitial inflammation with fibrosis and elongation and tortuosity of the pancreatic ducts. This lesion appeared as advanced as the cirrhotic changes in the liver. Other portions of the pancreas, however, showed no noteworthy pathologic change.

Marked chronic passive congestion, an increase in fibrous tissue and extensive deposition of pigment in the reticulo-endothelial cells were present throughout the spleen. Evidence of acute and chronic inflammation with pigment deposition was also present in enlarged lymph nodes about the hilum of the liver. Sections of the lower third of the esophagus showed dilatation and engorgement of the veins of the submucosa.

The significant changes in the kidneys were cloudy swelling of the epithelial cells of the convoluted tubules with a yellowish brown pigmentation of some and yellowish brown casts in the lumen of the tubules of both cortex and medulla. There were no glomerular lesions.

The final pathological diagnoses were: Carcinoma of the biliary papilla with biliary obstruction and marked dilatation of the extra-hepatic bile ducts and gall bladder; marked obstructive cirrhosis of the liver; choledocholithiasis; ascites; chronic passive congestion and fibrosis of the spleen; focal pancreatic fibrosis; chronic and acute regional lymphadenitis; acute bronchitis and early lobular pneumonia; biliary nephrosis; fibrinous pericarditis.

Discussion: In correlating the clinical course of this patient with the pathological findings the sequence of events may be stated to have commenced with the development of the neoplasm in the biliary papilla producing obstruction to free biliary drainage. Following this was the appearance of jaundice, intermittent at first but later constant although variable in intensity, enlargement of the liver and gall bladder with development of cirrhosis, ascites and splenomegaly. Terminally there were azotemia and pericarditis.

Few observers doubted that this patient was suffering from an obstructive lesion in the extrahepatic biliary system. The diagnosis of common duct stone as the obstructing agent was considered untenable because of the absence of episodes of biliary colic, chills and leukocytosis, and because of the presence of an obviously enlarging gall bladder. However, with the history of jaundice of long duration and the absence of occult blood in the feces, the concept that bile duct carcinoma was the factor in obstruction did not seem entirely justified until the discovery of a rounded elevation on the surface of the spleen more or less popularized this impression, this nodule being considered a metastatic neoplasm. The very long duration of the jaundice was the principal evidence considered unfavorable to a diagnosis of carcinoma of the head of the pancreas.

There was general agreement that cirrhosis of the liver was present and the consensus of opinion favored an obstructive type of cirrhosis in view of the degree of enlargement of the liver, the history of long standing jaundice and the nature of the laboratory findings. However, the history of alcoholism, the rather consistent presence of bile in the feces and the character of the ascitic fluid strongly suggested to some the presence of an underlying portal cirrhosis.

Carcinoma of the biliary papilla frequently remains localized, death being due to the effects of the bile stasis and occurring before there are metastases. It is true that in this case there was an unusually long history of biliary obstruction, the clinical data suggesting that there was an obstructing lesion at the ampulla during the last year of life. That metastases were not found, even in the regional lymph nodes, was somewhat surprising, since there was extensive permeation of the lymphatics of the duodenum by neoplastic tissue. That biliary calculi may have played a role in obstruction preceding the development of neoplasm is improbable. The absence of clinical evidence of disease of the gall bladder was reflected at necropsy in the demonstration of a thin walled, markedly distended gall bladder containing no stones and without morphologic evidence of past inflammation. The calculi present in the common bile duct were for the most part sandy concretions, in all probability a result rather than a cause of biliary obstruction. Also, the association of cholelithiasis with bile duct carcinoma is not as common as that of cholelithiasis with carcinoma of the gall bladder.

The cirrhosis of the liver, diffusely involving the portal areas, was of the type commonly associated with biliary obstruction and the cirrhosis of groups of lobules of the pancreas, appearing approximately of the same age as the hepatic cirrhosis, was in all probability due to obstruction of one of the smaller pancreatic ducts emptying into the ampulla of Vater. Portal obstruction as shown by ascites, splenomegaly and dilatation of the collateral circulation is rarely associated with obstructive cirrhosis save in cases of long duration.

In the management of a syndrome of this type surgery should be instituted early. Even though the ultimate mortality rate following surgery is high, surgery is the only treatment which offers a chance of a cure.

Treatment of Facial Wounds Due to Explosives

In the present national emergency we may expect to be called upon to treat wounds, due to explosions, both in civilian and military life. For this reason it was thought advisable to review briefly the high lights of the plastic repair of such injuries.

Of greatest importance in this treatment is the conservation of soft tissues of the face and its bony framework; careful elimination of powder marks, cinder marks, etc., as the first treatment may save marked disfigurement later; the early skin grafting of large denuded areas, chemical burns, etc., should minimize the deformities.

Extensive plastic repairs must be delayed for several months, but many mutilated victims can be improved immensely by patient plastic procedures.—Claire L. Straith, M.D., Detroit, Mich., Jour, M.S.M.S., Vol. 41, No. 6, June, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

WORK TOLERANCE FOLLOWING TUBERCULOSIS

"The appraisal of the ability of the individual to do some line of work begins with securing past-work history and continues throughout the period of training. Also the counseling of the patient and testing for special aptitudes by trained observers aids in appraising. It not only helps evaluation but it gives direction to effort, eliminating much time wasted by trial and error methods, and is most useful in creating interest and cooperation in patients."

Appraising the physical stamina of the patient to stand the strain of normal life is difficult. We have no clinical or mechanical tests to use as reliable measures of work tolerance. We cannot say just how many foot pounds of muscular energy this individual can safely expend, nor how much mental strain he can endure without reactivating his disease. Furthermore, our knowledge of just how much energy a given job requires is but vaguely known. Job analyses are usually made on the basis of speed rather than foot pounds of energy required.

Our present recourse, then, is the study of the patient as an individual during his stay in the sanatorium. Close observation will give us an appraisal of his inherent resistance to breakdown from physical effort, nervous upsets, or even intercurrent infection. With the knowledge thus gained the trial method of graduated exercise should be undertaken with careful watching. "Signs and symptoms of intoxication indicate over-exertion and need for return to rest therapy. Rise in temperature, increase in pulse rate, fatigue and loss of weight, sputum changes in quantity and content, changes in sedimentation rate and blood count and later increase in pathology as shown by X-ray, suggest reactivation.

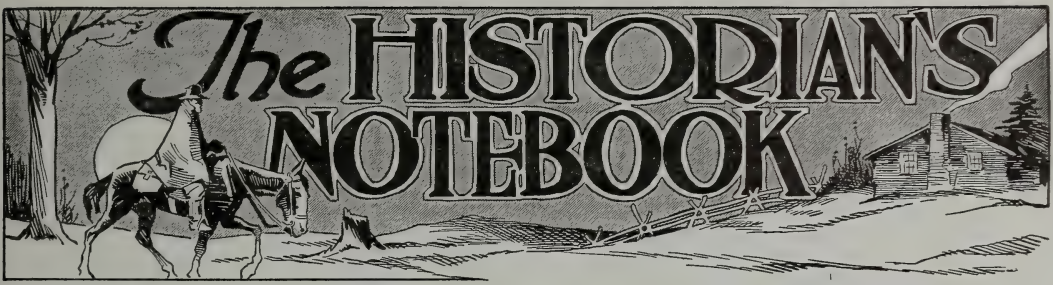
"In order to establish with more surety that a patient can withstand sustained efforts, a period of physical rehabilitation should be followed before discharge of the patient. Before it can be certain that the patient can lead a normal life and stand up to ordinary work conditions, sanatorium routine and cure hours should be broken. One of the hardest things for a patient is to discontinue the mid-day rest period. If he can be put on a full work schedule of forty hours a week for a few months before discharge and is able to play after work without undue fatigue, he should be able to do the same outside. This can be readily done in a sanatorium where there is a constant need for help and often to the advantage of the sanatorium."

In addition to the graduated exercise, test inferences may be drawn from X-ray studies of the characteristics of the disease during treatment, such as a tendency toward fibrosis, rapidity of healing and such evidences of good resistance. On the other hand, very extensive disease with reduced vital capacity, distortion of chest structures and possible cardiac embarrassment are obvious causes of low work tolerance.

In connection with its rehabilitation program, for over ten years Niagara Sanatorium (New York) has given close study to the problem of determining work tolerance. While only about half the patients are considered to afford hope of effective vocational rehabilitation, careful study is made of every case since whatever occupational therapy is possible is employed routinely. Patients have been given aptitude and personality tests by personnel from the National Tuberculosis Association and the State Rehabilitation Department has made provision for the completion of courses in a number of cases.

Only modest claims are made for the results thus far achieved. "It is true that the death rate in the sanatorium has remained unchanged, but the readmission rate has decreased, as have deaths of patients after discharge. Of 15 patients who have been aided by state rehabilitation, only one has since broken down and this was the result of lobar pneumonia in a patient with a complete thoracoplasty. As well as the evident individual results we have obtained, the morale of the entire population has improved. Few patients leave now because of boredom. Also, it has given us an employment agency, not only for temporary help but for permanent employees who have been tried and their ability proved. Some of our most valuable employees are ex-patients, trained in the peculiarities of our set-up and most valuable in that they carry with them the patients' viewpoint and an understanding of patients' trials and tribulations.

"To summarize, a rehabilitation program can be developed in a small sanatorium with benefit to patients individually and collectively and with advantages to the sanatorium. Tolerance for selective work can be built up in patients, but the evaluation like that for determining disease status, being dependent upon personal judgment of the significance of the individual's reactions, is only approximate. The program can be carried on at no great cost to the community and over a period of time the community, as a whole, will be repaid many times over."—A. M. Aitken, M.D. Paper given at annual meeting of National Tuberculosis Assn., Phila., Penna. May 6-9, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Beginnings of the Union District Medical Association

PHILIP D. JORDAN, Ph.D.

The Author

● **Dr. Jordan, Oxford, Ohio, associate professor of history at Miami University, long has been interested in medical history and has contributed articles on medical history to "The Historian's Notebook," *Annals of Medical History*, and the *Ohio Archaeological and Historical Society Quarterly*. His article on the Union District Medical Association is based upon the original records and minutes of the Association which were deposited in the Miami University Library by Dr. J. D. Schonwald.**

On June 18, 1867, a handful of Indiana doctors practicing in Union County met in one of their quarterly sessions. Eight miles down the dusty summer road lay the pleasant village of Oxford, Ohio, where a few physicians and surgeons were caring for the health of an agricultural community. Some of these men drove the short distance from Oxford to College Corner where the Union County Association was meeting. They had a plan in mind. Why not, they inquired of the Indiana practitioners, merge the Union County Association with the Butler County Medical Society? The suggestion was seized upon and a resolution passed consolidating the two organizations and enlarging them to include physicians from Fayette County, Indiana, and Preble County, Ohio. The first meeting of the Union District Medical Association, as the new society was called, was set for October 22 and was to be held in Oxford.

Among the men present in College Corner when the new society was created were a few from Indiana including D. D. Hall, Connersville; J. E. Morris, Liberty, and A. D. Hawley, College Corner. Eight physicians came from Oxford. Among these were Henry Saunders, H. A. Bodman, G. W. Goble, R. C. Huston, George Wyman, C. S. Ramsey, Hugh Gilchrist, and Edward L. Hill. Wm. Huber, J. L. McNeely, and W. W. Caldwell represented Hamilton. From Millville came J. R. Brown and H. D. Hinckley. John McMecham arrived from Darrtown and Lurton Dunham and Jas. S. Ferguson came from Camden. It would seem, therefore, that more Ohio physicians were in attendance even at the College Corner meeting.

News of the proposed merger and the organization of a medical group devoted to the interests of both Indiana and Ohio physicians quickly spread. A "comfortable" crowd was seated in the Hall of the Invincible Lodge of Odd Fellows in Oxford when the October meeting, the first general session of the Union District Medical Association, was called to order at ten o'clock. Dr. H. A. Bodman and Dr. E. L. Hill, both of Oxford, were named temporary president and secretary respectively. Within a few minutes these men were elected the first regular officers of the Association and, in addition, Dr. R. C. Huston, Oxford, was named treasurer, and Dr. D. D. Hall, Connersville, Indiana, vice president. The remainder of the morning was spent in formulating general objectives and appointing a committee to draw up a constitution and by-laws. It was determined that the general object of the Association was "to adopt, as a profession, the best plan to benefit the community in which we live." Dr. J. L. McNeely further clarified this general statement by offering a resolution which would permit membership to those "who desire the advancement of medical science, acquaintenance [sic] of their brethren in social recreation."

The group adjourned for lunch and reconvened at two o'clock to hear and adopt the report of the Committee on Constitution. Drs. J. L. McNeely, D. D. Hall, A. D. Hawley, Jas. S. Ferguson, and H. F. Garver composed this committee, and the report was presented by McNeely. The constitution was the usual formal document embodying typical provisions. Two interesting features, however, stood out. The objects of the Association were said to be the advancement of medical science, mutual improvement therein, and "the maintenance of union and harmony among medical men, thereby promoting the honor, interest and usefulness of the Profession." Here by implication is reference to the friction which in many places and instances was indicative of nineteenth-century medicine. The second provision of note was the statement that membership be confined to members of county medical societies. In other words, a physician must hold membership in a county society before he was eligible for admittance to the Association. This, as will be seen, was to cause trouble in more than one case. The only exception was in the instance where no county medical societies were in existence as in the case of Preble County. It was said on the floor that there "was no excuse for any man not to belong to this Association." Meetings of the Association were to be held annually and seven members were to constitute a quorum.

The second meeting of the Association was planned before the meeting adjourned. These plans were followed, and the Association convened in Oxford at the same place on January 30, 1868. Fifteen members were present. The following new members were present for the first time: G. R. Chitwood and A. W. Pinkerton of Liberty, Indiana; A. Koogler and Geo. W. Garver of Connersville, Indiana; and Jas. W. Saunders of Oxford. Dr. Geo. W. Keely, an Oxford dentist and president of the board of trustees of the Ohio Dental College at Cincinnati was declared an honorary member. By-laws were adopted.

Among these were the following provisions: Article V provided that the annual dues should be fifty cents per member; Article VI stipulated that the president should designate one or more members to read an essay connected with medical science at each meeting; and Article VII said that "Every member shall have the privilege of reading Essays or reporting any cases, as he may think proper, which shall be open to criticism and discussion by the members present." Article X further emphasized that membership be dependent upon prior membership in "any local or county" society. The next article which stipulated the order of business also prescribed an annual address by the president.

When the delegates returned from lunch they found no further business to merit their attention, so D. Trembly suggested the group turn to a discussion of cases. The first proposition was moved by McNeely who proposed for discussion "whether organic disease of the heart contra indicates the use of Chloroform as an Anaesthetic?" McNeely carried his own topic forward. He stated that, according to the evidence of Civil War surgeons, chloroform was used "indiscriminately" in the army and without injury. In civil life, however, it was the common opinion that heart disease contra indicated its use, and that deaths occurring during its administration were ascribed to that disease. He then asked if any among those present could offer evidence on this point. The discussion was dynamic from this point forward.

Drs. Bodman, Pinkerton, Wyman and Hill, for example, testified to the "perfectly indiscriminate" use of chloroform in both the army and navy and said further that in their judgment there were no evil results. Keely offered the experiences of a dentist in Covington, Kentucky who "gave it to everyone requiring the extraction of teeth, that he administered it by himself, without asking any questions and always without injury." Henry Saunders agreed, but Hill believed that "fatty degeneration" of the heart to be contra indicative. Garver supported Hill. Wyman testified that he did not believe anaemia or plethora contra indicated the use of chloroform or else "it would certainly have proved more injurious in the army, and in the treatment of Delirium Tremens." Pinkerton doubted that chloroform was ever the cause of death when it had been properly used and maintained that results were more dependent upon the way it was handled than upon the condition of the patient. He said chloroform was "always safe if sufficient air was taken into the lungs with it." This led to a discussion of specific cases.

Garver reported a case in which he could not get the patient under the influence of chloroform, although he tried "repeatedly," using it clear and with equal parts of ether. He also reported two cases of asphyxia, with recovery, caused by the inhalation of but a few drops of chloroform. Keely then reported the case of Allen Clute, of Oxford, who had a "slight epileptic fit" after the extraction of a tooth, "on the gums of which he had applied a little Chloroform" to deaden pain. He explained further that as the result of this incident many persons thought the fit had been caused by the application of the chloroform and that a great deal of blame was attached to him for using it. This little incident, he maintained, afforded a "fine example of the ease with which a man's reputation may be made to unjustly suffer, by any slight accident occurring at or near the time of using the medicine." The session then adjourned to meet in Liberty, Indiana on May 7, 1868. Before the delegates left, however, the president assigned Dr. Chitwood a topic to be presented at the next meeting. He was asked to speak on "The Moral and Social Relations Existing between Physicians and their Patients." Dr. Morris was to prepare an essay on "Anaesthetics and Their Mode of Action," and Dr. Keely on "The Best Mode of Administration of Anaesthetics."

Only nine members walked into the Court House at Liberty on May 7. Both president and vice president were absent. As a matter of fact, the resignation of Dr. H. A. Bodman of Oxford as president of the Association was received and accepted. Bodman, like several other members as time went on, felt the lure of the West which was developing so rapidly in the years immediately following the Civil War. He was preparing to dispose of his practice and to move to Portland, Oregon. D. D. Hall succeeded Bodman, and W. H. Scobey of Hamilton was named vice president.

Chitwood, as assigned, read his paper on "The Relations Between Physician and Patient" in the morning, but discussion was postponed until afternoon. Apparently the secretary felt that Chitwood did none too brilliant a performance, for no details were recorded concerning what the author said. This was in striking contrast to the secretary's careful reporting of the following papers by Morris and Kelly. Both of these continued the discussion on chloroform which had been begun at Oxford. The former presented a carefully prepared resumé of the current literature concerning the causes of death occurring prior to, during, and after inhalation. Keely concerned himself with techniques of administration.

The Association met on October 29, 1868 at Connersville, Indiana where occurred the first of a series of disputes and arguments concerning the eligibility of prospective members. After the Association had admitted to its rolls D. A. Hazzard, an undergraduate medical student from Fairview, Indiana who, of course, was not qualified to practice medicine and therefore belonged to no medical society whatsoever, it turned its attention to the case of Dr. Thomas Gifford of Laurel, Indiana. Gifford's application was opposed on the grounds—when the whole involved argument was reduced to its simplest terms—that he was homeopathetic in his approach rather than allopathic. The applicant made a dignified statement in his own defense. He said that "he was educated in the regular profession, and was a member of the last society that existed in Franklin Co., in good standing; that he used Homeopathic remedies and Allopathic remedies as each case seemed to require; that he took several journals of each school, and believed there was a good deal for the regular profession to learn yet from the Homeopaths; that he had learned, as he believed a great deal of them, and, while not claiming to be a Homeopath, nor yet strictly an Allopath, he claimed to be in its true sense as eclectic in practice. He believed in specifics in the treatment of acute diseases, and naturally sought for curative remedies of similia similibus; while in incurable cases and those best treated by palliatives he used 'regular' remedies."

Probably never in the history of the Union County Medical Association did a man express with more frankness and candor his medical philosophy, but it was not good enough for the group. After violent discussion a committee was appointed to recommend action in the Gifford case. This group of three submitted its findings immediately after lunch, saying that "if the doctor considers himself an Allopathic Physician, and will declare himself such, renouncing, as a system of medicine, Homeopathy, he be considered eligible and be admitted to membership."

Dr. Gifford again rose and said he had not much to add to his statements of the morning, that "by education and association he was by choice an Allopath; still he knew he was not such exclusively, not such a one as many thought was essential to a regular standing among them; that he did not believe in Homeopathy as a system of practice, but prescribed those remedies sometimes, on allopathic principles, submitting them to the test, and using such as by experience were of value." The Association interpreted this to mean that in so many words Gifford had fully and unequivocally accepted the conditions imposed upon him and thereupon elected him to membership. But the story was not yet ended, although Gifford's membership was sustained. A group of eight dissatisfied doctors in the group formally protested against the action. The Gifford case offers an excellent example of one of the major medical feuds in the United States in the nineteenth century.

Before the group adjourned it elected John Moffett of Rushville, Indiana, president; Henry Saunders of Oxford vice president; R. C. Huston was reelected treasurer; and Edward L. Hill was elected secretary.

When the Association met on May 6, 1869, delegates convened in the Ladies' Parlor of the Opera House in Hamilton. Dr. Moffett delivered his presidential address which commended the objects of the Association, exhorted all members to a high standard of professional attainments, the purest character, and all that constituted true gentlemen. The high light of the session, however, was a paper on obstetrics delivered by Dr. William A. Pugh of Rushville, Indiana. He was said to have presented an "elaborate and eminently practical" resumé of the most satisfactory modes of managing several of the most important and dangerous complications of labor and the puerperal state. His report contained first the case of a female child weighing 15¾ lbs., labor six hours, and he gave presentation, measures, etc.; second, he spoke of hemmorrhages, post partum, catamenial and from abortions, natural or forced, with remarks on the extent of criminal abortions; third, he spoke of six cases of podalic version with five recoveries and one death; fourth, he commented upon differential diagnosis of typhoid and puerperal fever and puerperal mania, especially showing the difference in the character of the delirium in these diseases, dwelling upon the treatment of puerperal mania and giving its statistics; fifth he discussed puerperal eclampsia, cases, remedies, chloroform and opium; sixth, he gave attention to placenta previa, case, results, manual or mechanical means only to be relied on with certainty, indicating that his first procedure was dilating the os by the Colpenrymeter or better by Barnes Dilator, and second by introducing the hand and effecting the most rapid delivery possible.

Dr. F. B. Morris of Venice presented a discussion of the treatment of pneumonia by large doses of opium. Prior to adjournment Dr. John Arnold and G. W. Garver were appointed delegates to the forthcoming meetings of the Ohio State Medical Society and Drs. C. Falconer and R. C. Huston to the Indiana State Medical Society.

The last meeting of 1869 which marks the end of the first period in the history of the Union District Medical Association was held in the Christian Church at Rushville, Indiana on October 28. The session was marked by bitter controversy between Dr. Hugh Gilchrist of Oxford and the Association. Gilchrist was notified that he was to be expelled from the Association unless he became a member of the Butler County Medical Society. The Association held that Gilchrist when he was admitted to membership pledged himself to join the Butler County group. The climax came when Gilchrist under date of October 4, 1869 wrote the Association that he would redraw his membership and thus "obviate the necessity of expelling one whom they consider a member."

At this time the Association also extended its range to include the physicians and surgeons of Wayne County, Indiana. The formal program consisted of a paper by Dr. R. C. Huston of Oxford who spoke on tumors, especially calling attention to a "peculiar variety of Fibrous tumor, which he had at different times met, and in the treatment of which he had found the external application of dry pulverized Sulphate of Zinc successful in a remarkable degree." Dr. J. R. Weist of Richmond, Indiana read a voluntary paper entitled, "Observations Upon the Peculiarities of the Fevers in the Vicinity of Richmond, As Seen and Treated in the Months of September and October, 1869." Weist said that these cases differed from the "ordinary Autumnal" fevers both in their manner of invasion and progress. Usually they began as intermittents, he said, and then gradually assumed in succession the character of remittent and typhoid fevers. Their progress also was marked by great irregularity in the time of appearance of the different symptoms. Among these symptoms were extreme pain in the back of the head, profuse perspiration which were further complicated by the failure of remedies to stay the disease and a tendency to relapse. Weist could only offer in conclusion that he had found a complex disease and knew not what to do for it. He was followed by Dr. R. E. Haughton, also of Richmond, who spoke on local fevers. Haughton concluded that this local type of fever should be known as "Typo-Malarial" or better still, as "Hemorraghagic [sic] Malarial Fever" because of the great tendency toward hemorrhage not only of the bowels, but also of hematemesis and epistaxis.

In 1870, the Association could look back upon six successful meetings held between 1867 and 1869 inclusive. An organization had been perfected that was working and seemed, indeed, to be meeting the demands of physicians in Indiana and Ohio. There had been the usual difficulties, of course, which were typical of any society, but all in all, the Association had moved in a fairly harmonious fashion. If the roll book containing the signatures of each member is to be trusted as complete, sixty-five physicians were admitted to membership between 1868 and the first of January 1870. Some of these individuals, however, remained members only for a relatively short period. Death accounted for Daniel Trombly of Oxford on July 24, 1868; D. D. Hall of Connersville died on June 20, 1871; and others were gathered by the Grim Reaper as the years continued. A few were stricken from the roll for one reason or another. Gilchrist of Oxford, as has been mentioned, lost a membership which he claimed he never had; Edward L. Hill of Oxford withdrew from his local society and threfore lost membership in the Association; George W. Garver of Connersville, Indiana, on October 31, 1872 because of unprofessional conduct; and W. W. Smith's name was deleted when he abandoned medicine to embrace the legal profession. By far the greater number of names removed from the membership roster of the Association, however, was due neither to death nor expulsion, but because of the lure of the far West. Indiana and Ohio physicians were leaving their practices to emigrate to Topeka, to Chicago, to Denver, and to San Francisco. There were no forces, however, that could still the activities of the Association. It continued to function until past the turn of the century as a memorial to the foresight of a group of Indiana and Ohio physicians who banded together to advance the science of medicine in their communities.

Ohio Medical Officer Recruiting Program Gaining Momentum; Another Board Set Up; Meetings During August Planned; Total of 1240 Ohio Physicians Now In Armed Forces and Many Others Await Action on Applications

OHIO'S medical officer recruiting program "is gaining momentum," according to an announcement made by Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Committee for Physicians, as this issue of *The Journal* went to press.

Up to July 24, a total of 1240 Ohio physicians were on active duty with the Army or Navy, or had been commissioned, awaiting orders and assignment.

In addition, approximately 300 others have filed applications for commissions with either the Army or Navy and are awaiting final acceptance of their applications.

It is estimated, according to Dr. Conard, that approximately twice the number of Ohio physicians now in the service will be in uniform as medical officers by Fall.

"Although the present recruiting drive is gaining momentum" Dr. Conard stated, "the present need of the Army Medical Corps for officers still is acute and Ohio will be expected to furnish many more medical officers during the next several months."

Available Ohio physicians who have not as yet met with the Ohio Medical Officers Recruiting Board will have an opportunity to do so during the month of August.

SECOND BOARD SET UP AT COLUMBUS

A second recruiting board has been set up in Ohio by Colonel E. C. Jones, Fifth Corps Area Surgeon, to expedite the handling of applications for commissions. This board is composed of Major Norman Booher, M.C., representing the Surgeon General, Captain L. D. Neu, representing the Adjutant General and Lt. J. Arnold, representing the Army Air Surgeon. It maintains headquarters at 74 East Gay Street, Columbus, where physicians seeking commissions may obtain information and file an application for a commission.

The original Ohio Medical Officer Recruiting Board which has been holding meetings throughout the state has meetings scheduled through August 14, giving physicians an opportunity to discuss questions with the board and file an application, at centers near their home town. There has been a change in the personnel of that board. It is now composed of Captain C. E. Northrup, M.C., representing the Surgeon General, (an original member of the board); Captain Walter H. Seltzer, representing the Adjutant General, who succeeds Major Hiram S. Perry, assigned to other duties, and Captain Howard C. Smith, representing the Army Air Surgeon. A dental officer also has been assigned to the board—Captain William P. Sherrer.

SCHEDULE FOR AUGUST ANNOUNCED

The traveling recruiting board, headed by Captain Northrup, is scheduled to visit the following centers during the next few weeks:

Cleveland, Academy of Medicine, August 1 (new applications)
Cincinnati, Cincinnati Academy, Agust 3 and 4 (new applications)
Portsmouth, General Hospital, August 5 (to commission applicants)
Marietta, Memorial Hospital, August 6 (to commission applicants)
Toledo, Toledo Academy, August 7 and 8 (to commission applicants)
Cleveland, Cleveland Academy, Aug. 10 to 11 (to commission applicants)
Cincinnati, Cincinnati Academy, Aug. 13 and 14 (to commission applicants)

PHYSICIANS WHO ARE UNABLE TO MEET THE BOARD IN CLEVELAND ON AUGUST 1 OR IN CINCINNATI ON AUGUST 3 AND 4, WHEN THE BOARD WILL TAKE NEW APPLICATIONS, SHOULD VISIT THE COLUMBUS BOARD AT 74 EAST GAY STREET TO FILE APPLICATIONS.

The Procurement and Assignment Committee urges physicians to file their applications before August 14 as the recruiting boards are scheduled to be withdrawn from Ohio after that date. Those who delay and have to file later will be confronted with inconvenience and red-tape as it may be necessary for them to file directly with the Surgeon General at Washington.

An analysis of the present recruiting program made by the Procurement and Assignment Committee is summarized by Dr. Conard as follows:

"There has been a splendid response generally to the need of the Army for medical officers," he said. "However, Ohio is not 'over the top' by any means. We will be expected to furnish many more medical officers.

"The committee is watching the situation very carefully, especially as it affects rural communities. Every effort is being made to see that no community is left without medical and health protection. In some instances the people may have to look to physicians in nearby and immediately adjacent towns and villages for medical care but the committee will see to it that no area is left entirely unprotected.

"The committee has been confronted with a most difficult task but is trying to meet its responsibilities courageously and in a judicious manner. A few mistakes have been made but these have been rectified, or will be. As new information is obtained, the committee will make revisions in its lists of available physicians. There is no such thing as a permanent "available" or permanent "non-available" list. Conditions are changing almost daily. This means that the committee must analyze its lists frequently and make new decisions, based on new circumstances.

NO NEED FOR PUBLIC TO BE ALARMED

"Because of some statements which have been published, the public in some areas has become unduly alarmed about a so-called shortage of medical personnel. Even if 2500 Ohio physicians should enter the armed forces, at least 6,000 doctors of medicine will be left at home to provide services for the civilian population. Obviously, it may become necessary for the committee to work out some voluntary plan to bring about a little better distribution of medical manpower in some parts of the state. We believe this can be accomplished as we are convinced that the physicians who remain at home will do everything within their power and will make real sacrifices to meet the needs of the people.

"On the other hand, the public will have to co-operate with the medical profession in this time of crisis. The demands on the time and services of each physician will have to be minimized. Some families will have to seek new family physicians for the duration. The physicians who enter the service are making great sacrifices. Those who remain at home will gladly work longer and harder to do their part. Therefore, we feel it is not asking too much to request the help and cooperation of the public.

"In the final analysis, every effort today is being directed toward the winning of the war. For that reason the needs of the armed forces for medical personnel must be given first consideration. This will be done. At the same time, however, we feel that the need can be met without danger to the civilian population through a reasonable distribution of medical personnel between the armed forces and home communities.

THOSE ELIGIBLE SHOULD NOT DELAY

"Physicians who are considered available for military service, especially younger doctors whose services are needed especially by the Army and Navy, should not delay

in applying for a commission. Those who may be rejected for one reason or another by the Navy or Civil service agencies, should apply for the Army. Those who were rejected as recently as three months ago by the Army, should request another physical examination, as the physical standards are modified periodically. Also physicians with minor physical defects but who are fit enough for limited service assignments, should apply as some are being accepted now by the Army.

"The way the physicians of Ohio have responded during the past month is extremely gratifying and reveals what the committee already knew, namely that the medical profession always meets its responsibilities when it is convinced that its services are needed and when it is told that now is the time for action."

Pointing out that there is a distinct disparity between the applications from physicians coming through various routes directly to the Office of the Surgeon General of the Army, to the Air Force and to the Navy and the number that ought to be immediately available to meet our war needs, The Journal of the American Medical Association, in its July 25 issue, says: "Let us realize that the winning of this war is the most important single objective ever placed before the medical profession of these United States and give to our nation the same complete, wholehearted, voluntary service on which the nation has learned to depend in the past."

PHYSICIAN SHOULD KEEP HIS S. S. BOARD INFORMED

A physician who applies for a commission with the armed forces should immediately notify his local selective service board. The Selective Service law also requires that a registrant shall notify his board when he has been commissioned. Compliance with these regulations is important so that the registrant will maintain his correct status with the board.

The Journal editorial follows:

"As has been indicated previously in The Journal, many of the states have already given to the armed forces almost every physician that can be spared now. Some of the larger states must supply the personnel necessary for the immediate demands. Elsewhere in this issue . . . is notation of the establishment in several states of additional recruiting boards which are designed to aid the work of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians.

"The letter circulated by the Procurement and Assignment Service has brought to the headquarters of that organization great numbers of return postal cards which indicate that many physicians have volunteered and are volunteering in response to the latest appeal. Nevertheless there is a distinct disparity between the applications coming through various routes directly to the Office of the Surgeon General of the Army, to the Air Force and to the Navy and the number that ought to be immediately available. Certainly the situation is not satisfactory when the armed forces are without a reserve pool from which to draw for an emergency. Everything possible is being done that can be done to hasten action on the applications of physicians through recruiting boards or directly through the Offices of the Surgeon Generals. The drive must continue, however, until some thousands of doctors have been commissioned who will be available for any contingency that may arise.

"Again and again The Journal has pointed out that the need of the armed forces will require that every physician under 45 years of age and physically fit who has not been stated by his state board of procurement and assignment to be engaged in an essential occupation must be made available to the armed forces. The Selective Service Act makes available to the armed forces every male citizen in the United States under 45 years of age. The physician who waits for the draft to pick him up certainly is in an unenviable light before his profession but even more in his own self respect. Little is to be gained by hesitating or holding back until the call comes, as it eventually will have to come from the boards of the Selective Service if the needs of the armed forces are not satisfied.

"The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was developed to aid the medi-

cal profession in determining for itself equitable distribution of medical service during the emergency. By utilizing its facilities, hospitals are being enabled to retain essential members of their staffs, industries are being enabled to retain necessary physicians and medical schools are being enabled to hold a sufficient number of their faculties to continue medical education. Everything possible is being done to enable individual communities to retain enough physicians to provide needed medical service for the civilian population. If, however, the armed forces do not get the medical personnel that they require the civilian population might be compelled to yield physicians who are doing their utmost to maintain civilian health. . . ."

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of Ohio physicians commissioned since the July issue of *The Journal* went to press, on June 22, and up to July 24:

Name	City	Rank
Adam, Alan B.	Cleveland	1st Lt., U.S.A.
Adolph, Paul E.	Bellevue	Capt., U.S.A.
Alexander, Fred W.	Cleveland	Capt., U.S.A.
Alexander, Stephen J.	Dayton	1st Lt., U.S.A.
Alison, John	Cleveland Heights	Capt., U.S.A.
Anderson, John G.	Lynchburg	Capt., U.S.A.
Andrews, Stanley B.	Toledo	1st Lt., U.S.A.
Andrus, Willard B.	Columbus	Capt., U.S.A.
Angle, Robert O.	Mansfield	1st Lt., U.S.A.
Apanasewicz, Leo E.	Cleveland	1st Lt., U.S.A.
Arnold, Emmet W.	Columbus	Capt., U.S.A.
Axeison, Oscar A.	Youngstown	Capt., U.S.A.
Ayers, Wm. B.	Dayton	1st Lt., U.S.A.
Ballard, Robert E.	Lakewood	1st Lt., U.S.A.
Barckman, Wm. H.	Cleveland	1st Lt., U.S.A.
Barth, Walter M.	Cleveland	1st Lt., U.S.A.
Barton, Paul F.	Galion	1st Lt., U.S.A.
Bartunek, Robert B.	Shaker Heights	1st Lt., U.S.A.
Basnett, Carl M.	Columbus	Capt., U.S.A.
Beale, Allen W.	Warren	Capt., U.S.A.
Beck, Harry W.	Canton	Capt., U.S.A.
Beckerman, Samuel	Cleveland	1st Lt., U.S.A.
Bell, Clarence H.	Mansfield	Capt., U.S.A.
Benes, Franklin A.	Shaker Heights	1st Lt., U.S.A.
Benjamin, Julien E.	Cincinnati	Lt. Col., U.S.A.
Bennett, Paul E.	Cincinnati	1st Lt.. U.S.A.
Berry, Jack J.	Cleveland	1st Lt., U.S.A.
Beynon, David E.	Girard	1st Lt., U.S.A.
Bilton, J. L.	Clevland	Lt. (j.g.) U.S.N.
Blackledge, Ord C.	Cleveland	1st Lt., U.S.A.
Blackstone, Paul Andrew	Bellville	Capt., U.S.A.
Bogue, Charles A.	Warren	1st Lt., U.S.A.
Bolotin, Jos. H.	Warren	1st Lt., U.S.A.
Bowman, Harold J.	Canton	Capt., U.S.A.
Brandmiller, Barclay M.	Youngstown	1st Lt., U.S.A.
Brown, Charles G.	Mansfield	1st Lt., U.S.A.
Brown, David Van	Columbus	1st Lt., U.S.A.
Brown, Geo. W.	Youngstown	1st Lt., U.S.A.
Brown, Russell N.	Centerville	1st Lt., U.S.A.
Brubaker, Wilbur K.	Elyria	Capt., U.S.A.
Brumm, Lewis P.	Cincinnati	1st Lt., U.S.A.
Bryant, Richard D.	Cincinnati	Lt., U.S.N.
Burgess, Everett C.	Wooster	1st Lt., U.S.A.
Burgner, Earl W.	Akron	Capt., U.S.A.
Butner, Chas. O.	Shiloh	1st Lt., U.S.A.
Bynum, Frank L.	Cleveland	1st Lt., U.S.A.
Cameron, James E.	Defiance	1st Lt., U.S.A.
Camp, Kenneth E.	Youngstown	1st Lt., U.S.A.
Canava, Andrew W.	Cincinnati	Capt., U.S.A.
Catalano, Anthony C.	Cleveland	Capt., U.S.A.
Cattell, James Paul	Steubenville	1st Lt., U.S.A.
Chalker, Harry E.	Girard	Capt., U.S.A.
Charvat, Thomas F.	Cleveland	Lt., U.S.N.
Chrenka, Paul	Cleveland	1st. Lt., U.S.A.
Clark, Clayton W.	Cleveland	1st Lt., U.S.A.
Clark, George E.	Cincinnati	Major, U.S.A.
Coddington, Oscar L.	Columbus	Capt. U.S.A.
Coffin, Theodore A.	Painesville	Capt., U.S.A.
Cohn, Henry B.	Cleveland	Capt., U.S.A.
Cole, Harold Newton, Jr.	Shaker Heights	1st Lt., U.S.A.
Colombi, Christopher A.	Lyndhurst	1st Lt., U.S.A.
Craw, Bernard.	Toledo	1st Lt., U.S.A.
Crow, Morton J.	Warren	1st Lt., U.S.A.
Crum, Louis J.	Cincinnati	1st Lt., U.S.A.
DeCicco, Gabriel E.	Youngstown	1st Lt., U.S.A.
DeMarco, Anthony R.	Cleveland	1st Lt., U.S.A.
Dickey, Lincoln C.	Shaker Heights	1st Lt., U.S.A.
Ditch, Gerald E.	Caldwell	Capt., U.S.A.
Doernberg, Robert J.	Spencerville	1st Lt., U.S.A.
Doran, Patric C.	Akron	Major, U.S.A.
Dougherty, C. M.	New Philadelphia	Major, U.S.A.
Drake, John C.	Mt. Vernon	Major, U.S.A.
Dunham, Marshall B.	Dayton	1st Lt., U.S.A.
Eastman, Robert L.	Mt. Vernon	Major, U.S.A.
Edmonds, K. T.	West Alexandria	1st Lt., U.S.A.
Edwards, Thomas L.	Mt. Vernon	1st Lt., U.S.A.
Eiser, Joseph	Toledo	1st Lt., U.S.A.
Evans, George L.	Mansfield	1st Lt., U.S.A.
Evans, Harrison.	Columbus	Capt., U.S.A.
Fawcett, J. T.	Elyria	Major, U.S.A.
Feldman, Stanley L.	Cleveland	1st Lt., U.S.A.
Felson, Henry	Cincinnati	Capt., U.S.A.
Fergus, Jos. A.	St. Paris	1st Lt., U.S.A.
Ferraro, Wm. R.	Canton	Capt., U.S.A.
Fishman, Melvin B.	Cincinnati	1st Lt., U.S.A.
Forman, Wiley L.	Columbus	Capt., U.S.A.
Fox, Thomas Edward.	Columbus	1st Lt., U.S.A.
Freedman, Milton I.	Akron	Capt., U.S.A.
Frush, Riley E.	Lexington	1st Lt., U.S.A.
Fusco, Patrick J.	Warren	Capt. U.S.A.
Galbreath, Walter F.	Findlay	Capt., U.S.A.
Gall, Edward A.	Cincinnati	Capt., U.S.A.
Gambrel, Francis John	Youngstown	1st Lt., U.S.A.
Garcia, Chas. T.	Cleveland	1st Lt., U.S.A.
Garvin, Gilbert E.	Blanchester	Capt., U.S.A.
Gaynon, Irwin E.	Cincinnati	1st Lt., U.S.A.
Gerlinger, Theodore V.	Willard	1st Lt., U.S.A.
Gettrost, Jos. M.	Columbus	Capt., U.S.A.
Giannestras, N. J.	Cincinnati	Capt., U.S.A.
Goetz, John P.	Akron	Capt., U.S.A.
Goff, Sylvanus Wm.	Akron	1st Lt., U.S.A.
Goodman, Sander	Cincinnati	Capt., U.S.A.
Goodman, Wm. E.	Warren	1st Lt., U.S.A.
Gordon, Maurice B.	Cleveland	Capt., U.S.A.
Gotwald, David K.	Springfield	Capt., U.S.A.
Gould, James A.	Dayton	Lt. Col., U.S.A.
Graller, David L.	Cincinnati	Capt., U.S.A.
Gregor, David H.	Columbus	1st Lt., U.S.A.
Gross, Harold T.	Columbus	Lt. (j.g.) U.S.N.
Grothjan, Cletus A.	Toledo	Major, U.S.A.
Guthrie, Morris B.	Columbus	Capt., U.S.A.
Hass, Leonard J.	Cleveland	1st Lt., U.S.A.
Hagen, John S.	Cincinnati	1st Lt., U.S.A.
Hall, Raymond A.	Youngstown	Capt., U.S.A.
Haller, Harry A.	Cleveland	Lt., U.S.N.
Hamilton, Gerald W.	Akron	Capt., U.S.A.
Hamilton, John M.	Cleveland	Capt., U.S.A.
Hannan, John R.	Cleveland	1st Lt., U.S.A.
Hardgrove, George L.	Doylestown	Capt.; U.S.A.
Hargrave, Dudley W.	Cincinnati	1st Lt., U.S.A.
Hargraves, W. B.	Canton	1st Lt., U.S.A.
Hart, James R.	Cleveland	1st Lt., U.S.A.
Hathhorn, H. E.	Youngstown	Capt., U.S.A.
Haynie, Harold C.	Toledo	1st Lt., U.S.A.
Heery, Ralph	Cincinnati	1st Lt., U.S.A.
Henderson, John F.	Akron	Capt., U.S.A.
Henderson, Wm. C.	Xenia	1st Lt., U.S.A.
Herman, Wm. W.	Cleveland	1st Lt., U.S.A.
Hewes, Frederic L.	Cleveland	Capt., U.S.A.
Hicks, Warren W.	Columbus	Capt., U.S.A.
Hochausler, Carl Jos.	Cincinnati	1st Lt., U.S.A.
Horton, C. B.	Dayton	Major, U.S.A.
Hunting, Wm. Fred	Cincinnati	Capt., U.S.A
Iglauer, Arnold.	Cincinnati	Capt., U.S.A.
Irish, Everett A.	Barberton	Capt., U.S.A.
Jacobs, John B.	Ashland	1st Lt., U.S.A.
Jacoby, Ben E.	Columbus	Lt (j.g.) U.S.N.
Jaffa, Jack I.	Cleveland	Capt., U.S.A.
Jennings, Wm. Paul	Cincinnati	Capt., U.S.A.
Kandrac, Francis T.	Warren	1st Lt., U.S.A.
Karam, James J.	Canton	1st Lt., U.S.A.
Karrer, Herman E.	Plain City	1st Lt., U.S.A.
Katzenmyer, Walter R.	Shaker Heights	1st Lt., U.S.A.
Kaufman, Paul N.	Youngstown	Capt., U.S.A.
Kendall, Milton M.	Youngstown	1st Lt., U.S.A.
Kenney, Edward J.	Cuyahoga Falls	1st Lt., U.S.A.
Kezur, Edward	Cincinnati	1st Lt., U.S.A.
Kilpatrick, E. M.	Columbus	Capt., U.S.A.
King, Douglass	Alliance	1st Lt., U.S.A.
King, Harry E.	Dayton	Capt., U.S.A.
Kling, Herman A.	Youngstown	Capt., U.S.A.
Knapp, John Adam	London	Capt., U.S.A.
Knierim, Harlan	Mansfield	Lt., U.S.N.
Kocur, James L.	Cleveland	Capt., U.S.A.
Koechert, Herbert	Cleveland	Major, U.S.A.
Krakoff, Morris A.	Columbus	1st Lt., U.S.A.

Name	City	Rank
Krishna, Ikbal	Toledo	Capt., U.S.A.
Kuehn, A. J.	Toledo	Major, U.S.A.
Kukuk, Milton R.	Toledo	1st Lt., U.S.A.
Kumpe, Carl W.	Hillsboro	1st Lt., U.S.A.
Lamkin, Glenn S.	Sardinia	1st Lt., U.S.A.
Landen, Cornelus.	Columbus	1st Lt., U.S.A.
Lecklitner, Myron D.	Wilmot	1st Lt., U.S.A.
Lehmann, Benjamin J.	Middletown	1st Lt., U.S.A.
Lehmiller, Karl L.	Canton	Capt., U.S.A.
Lenhert, Amos E.	Cleveland	1st Lt., U.S.A.
Lerner, David L.	Cincinnati	Capt., U.S.A.
Levin, Tom S.	Cincinnati	Lt., U.S.N.
Libecap, Irvin L.	Cleveland	1st Lt., U.S.A.
Lindenmayer, Alfred P.	Cleveland	1st Lt., U.S.A.
Lobe, Samuel	Cincinnati	Capt., U.S.A.
Long, H. A.	Hamilton	1st Lt., U.S.A.
Longacre, Jacob J.	Cincinnati	Capt., U.S.A.
Lord, Raymond S.	Fredericktown	1st Lt., U.S.A.
Lucas, Richard	Columbus	Capt., U.S.A.
Magnuson, Robert H.	Bexley	1st Lt., U.S.A.
Maier, Ruben R.	Shaker Heights	Capt., U.S.A.
Maltby, George L.	Cincinnati	Capt., U.S.A.
Marcus, David	Cleveland Heights	Capt., U.S.A.
Marinelli, Adolphus C.	Youngstown	Capt., U.S.A.
Marines, Thomas P.	Mansfield	1st Lt., U.S.A.
Matuszewski, Stanley J.	Cleveland	1st Lt., U.S.A.
McAfee, James P.	Porthsmouth	Capt., U.S.A.
McConkey, Harmar H.	Canton	1st L., U.S.A.
McConnell, Paul R.	Youngstown	Major, U.S.A.
McElroy, Wm. D.	Youngstown	Major, U.S.A.
Messenger, Harold M.	New London	1st Lt., U.S.A.
Mills, James Fleming	Cincinnati	1st Lt., U.S.A.
Mitchell, Homer Lee.	Columbus	Capt., U.S.A.
Morton, John E.	Bexley	1st Lt., U.S.A.
Mosher, Hanry Adams	Dayton	Capt., U.S.A.
Mossman, Jack D.	Columbus	1st Lt., U.S.A.
Moyer, Lewaaron H.	Youngstown	Capt., U.S.A.
Muter, Clyde W.	Warren	1st Lt., U.S.A.
Myer, Wm. G.	Columbus	1st Lt. U.S.A.
Norton, Harold J.	Columbus	Capt., U.S.A.
Osborne, Johnston F.	Cleveland Heights	1st Lt., U.S.A.
Osler, George E.	Cincinnati	Capt., U.S.A.
Oxley, Charles M.	Cincinnati	1st Lt., U.S.A.
Pagano, James J.	Canton	1st Lt., U.S.A.
Parker, George J.	Columbus	1st Lt., U.S.A.
Parker, Wendell	Cleveland	Capt., U.S.A.
Partington, Philip F.	Shaker Heights	Capt., U.S.A.
Patterson, Robert J.	Springfield	1st Lt., U.S.A.
Peelle, Elias D.	Wilmington	1st Lt., U.S.A.
Pickard, Edgar C.	Stow	Capt., U.S.A.
Pickett, Frank J.	Cleveland	1st Lt., U.S.A.
Pilloff, Benjamin	Uhrichsville	1st Lt., U.S.A.
Pitcher, Carter L.	Portsmouth	Capt., U.S.A.
Piver, Wm. C., Jr.	Cleveland	1st Lt., U.S.A.
Porbe, Clarence O.	Cleveland	1st Lt., U.S.A.
Raines, James R.	Cleveland	Capt., U.S.A.
Ralston, Jos. A.	Warren	1st Lt., U.S.A.
Ralston, Louis G.	Youngstown	1st Lt., U.S.A.
Raymond, Cecil A.	Barberton	Capt., U.S.A.
Reed, Myron S.	Mansfield	1st Lt., U.S.A.
Rehm, Ernest D.	Toledo	1st Lt., U.S.A.
Reich, Roland A.	Centerville	1st Lt., U.S.A.
Reno, Edward C.	Canton	Capt., U.S.A.
Robertson, Alexander D.	Willard	1st Lt., U.S.A.
Robinson, Harry H.	Cleveland	Capt., U.S.A.
Roettig, Louis C.	Columbus	1st Lt., U.S.A.
Rosenow, Oscar F.	Columbus	1st Lt. U.S.A.
Roszmann, Marvin H.	Morral	1st Lt., U.S.A.
Rothermich, Norman O.	Columbus	1st Lt., U.S.A.
Russell, John M.	Youngstown	Capt., U.S.A.
Ryan, Wm. J.	Akron	1st Lt., U.S.A.
Sanders, John H.	Rocky River	1st Lt., U.S.A.
Santurello, Thomas D.	Columbus	Major, U.S.A.
Schaen, Irvin R.	Cincinnati	1st Lt., U.S.A.
Schiro, Harold S.	St. Bernard	Major, U.S.A.
Schkloven, Norman	Cincinnati	1st Lt., U.S.A.
Schloss, Stuart A.	Cincinnati	Lt., U.S.N.
Schneider, Adolph B.	Cleveland	1st Lt., U.S.A.
Schwartz, Edw. D.	Cleveland	Capt., U.S.A.
Scott, John M.	Canton	Capt., U.S.A.
Sears, Clarence W.	Youngstown	Capt., U.S.A.
Seebohm, Paul M.	Cincinnati	1st Lt., U.S.A.
Sheehan, Frank T.	Columbus	Lt. (j.g.) U.S.N.
Sheehan, Thos. A.	Shaker Heights	Capt., U.S.A.
Sheinin, Louis	Akron	1st Lt., U.S.A.
Shensa, Lewis S.	Youngstown	1st Lt., U.S.A.
Sidenberg, S. S.	Cleveland	Lt. Comdr., U.S.N.
Simon, Karl J.	Canton	Capt., U.S.A.
Smedal, Erling Arnold	Mansfield	Capt., U.S.A.
Smeddin, Harold E.	Cincinnati	1st Lt., U.S.A.
Snyder, Robert D.	Dayton	Capt., U.S.A.
Soldt, Robert Lee	Bucyrus	Lt. Comdr., U.S.N.
Stack, Leonard A.	Lorain	Lt. Comdr., U.S.N.
Steele, Wendell M.	Newark	Capt., U.S.A.
Stein, Joseph	Cincinnati	Capt., U.S.A.
Stewart, James V.	Massillon	1st Lt., U.S.A.
Stewart, Wilbur	Fostoria	Capt., U.S.A.
Stratton, Kenneth L.	Portsmouth	1st Lt., U.S.A.
Strauchen, Gilbert W.	Cincinnati	1st Lt., U.S.A.
Stricker, Geo. J.	Clevland	1st Lt., U.S.A.
Taplits, Sol	New Richmond	1st Lt., U.S.A.
Teufel, Wm. J.	Cleveland	1st Lt., U.S.A.
Thomas, Densmore	Niles	1st Lt., U.S.A.
Thompson, John M.	Upper Sandusky	1st Lt., U.S.A.
Tilton, Louis J.	Frazeysburg	Capt., U.S.A.
Trotter, Richard W.	Youngstown	1st Lt., U.S.A.
Tsaloff, Nicholas M.	Akron	Capt., U.S.A.
Tschantz, Robert E.	Canton	1st Lt., U.S.A.
Tuckerman, Jacob B.	Cleveland	1st Lt., U.S.A.
Ulin, Alexander W.	Cincinnati	1st Lt., U.S.A.
Vinocur, Jos. L.	Cleveland	Capt., U.S.A.
Volzer, Elmer A.	Canton	Capt., U.S.A.
Wagner, Carl W.	Cincinnati	Capt., U.S.A.
Wales, Craig C.	Youngstown	1st Lt., U.S.A.
Walker, John M.	Dayton	Capt., U.S.A.
Walter, John A.	Youngstown	1st Lt., U.S.A.
Ward, Harold Wheeler	Columbus	Capt., U.S.A.
Warner, Frank M.	Barberton	Capt., U.S.A.
Warroh, Ralph E.	Mansfield	1st Lt., U.S.A.
Watson, Geo. B.	Columbus	Capt., U.S.A.
Wedemeyer, Marlin R.	Oak Hill	1st Lt., U.S.A.
Welch, Jack J.	Columbus	1st Lt., U.S.A.
Werner, Marshall R.	Akron	1st Lt., U.S.A.
Williams, Geo. J.	Cleveland	1st Lt., U.S.A.
Williamson, Harold A.	Akron	1st Lt., U.S.A.
Wilson, Rex H.	Akron	Capt., U.S.A.
Winston, Paul B.	Cincinnati	1st Lt., U.S.A.
Wolf, Robert E.	Uhrichsville	1st Lt. U.S.A.
Wolfe, Clement V.	Columbus	Capt., U.S.A.
Wolford, Robert W.	Mansfield	1st Lt., U.S.A.
Wright, Herbert B.	Cleveland	Major, U.S.A.
Yeager, Floyd D.	Marion	Capt., U.S.A.
Zeiders, Glenn W.	Canton	Capt., U.S.A.

PROMOTIONS LISTED

During the month *The Journel* received information that the following Ohio medical officers have been promoted to the rank indicated:

Name	City	Rank
Ash, Edwin E.	Cincinnati	Capt., U.S.A.
Eddy, Howard C.	Cleveland	Lt. Col., U.S.A.
Hansen, Paul G.	Warrensville	Major, U.S.A.
Howe, Chas. E.	Westerville	Major, U.S.A.
Klopfenstein, A. R.	Toledo	Lt. Comdr., U.S.N.
Shilling, Harry E.	Troy	Capt., U.S.A.
Stone, Sidney R.	Cleveland	Lt. Col., U.S.A.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 1240 Ohio physicians in the armed forces as of July 24 by counties. This list is unofficial. If there are errors of commission or omission, *The Journal* would appreciate receiving corrections:

Adams	1	Guernsey	0	Morrow	0
Allen	11	Hamilton	152	Muskingum	5
Ashland	4	Hancock	7	Noble	1
Ashtabula	10	Hardin	3	Ottawa	6
Athens	7	Harrison	1	Paulding	2
Auglaize	4	Henry	0	Perry	3
Belmont	6	Highland	4	Pickaway	3
Brown	2	Hocking	2	Pike	1
Butler	11	Holmes	1	Portage	1
Carroll	1	Huron	7	Preble	2
Champaign	5	Jackson	1	Putnam	1
Clark	11	Jefferson	11	Richland	26
Clermont	4	Knox	6	Ross	7
Clinton	3	Lake	3	Sandusky	3
Columbiana	4	Lawrence	4	Scioto	8
Coshocton	3	Licking	7	Seneca	3
Crawford	3	Logan	5	Shelby	1
Cuyahoga	332	Lorain	14	Stark	43
Darke	2	Lucas	59	Summit	60
Defiance	2	Madison	4	Trumbull	16
Delaware	5	Mahoning	53	Tuscarawas	8
Erie	3	Marion	8	Union	1
Fairfield	1	Medina	4	Van Wert	2
Fayette	2	Meigs	1	Vinton	1
Franklin	138	Mercer	1	Warren	1
Fulton	2	Miami	3	Washington	3
Gallia	5	Monroe	1	Wayne	7
Geauga	2	Montgomery	63	Williams	1
Greene	8	Morgan	1	Wood	5
				Wyandot	1

Total..........................1240

Important Resolutions on Variety of Subjects Adopted by A.M.A. House of Delegates at Recent Meeting

MEDICAL service plans, post-war medical planning, venereal disease control, ethical practices, and other points of equally timely interest to physicians were the subjects of resolutions considered by the House of Delegates of the American Medical Association at its 93rd annual session in Atlantic City.

The House approved the service indemnity principle for medical service plans when such plans are in accord with the recommendations relative to medical service plans adopted by the House of Delegates. Only the cash basis of indemnification had previously had the official approval of the House.

A resolution introduced by Dr. B. J. Hein, Toledo, for the Ohio delegation and unanimously adopted, proposed the establishment of refresher courses in general clinical medicine for medical officers of the armed services at the close of hostilities. According to terms of this action, the Council on Medical Education and Hospitals is charged with the development of such a program, and the Board of Trustees is instructed to confer with the proper federal authorities regarding the granting of furloughs with full pay and allowances to medical officers who desire to take this refresher training.

POST-WAR POLICY ADOPTED

Recognizing that America's system of independent medical practice has been a dominant factor in national health progress and the physician's contribution to the war effort, the House of Delegates resolved to "place ourselves officially on record as recognizing our responsibility for making the utmost effort to preserve the elements of independence and freedom of action that will make possible the easy re-entry of physicians now in military service into civilian practice. To this end we recommend that a definite part of each program of every component member medical society be devoted to a reconsideration of the traditions, the standards, the freedoms, and the effects of absence of restraints and outside controls which have contributed so materially to American medicine's unequalled progress and vast achievements."

After rejecting a majority report which would not have named any specific organization, the House adopted a minority report which recommended passage of a resolution to approve the activities of the National Physician's Committee for the Extension of Medical Service and to "encourage this effort and similar efforts with identical purposes."

A resolution was introduced which would have placed the House on record as approving the commissioning of women physicians in the Army and Navy medical corps, but the delegates held that this was an administrative matter "wholly within the province of the Surgeon Generals of the Army and Navy."

The House adopted a resolution to "take emphatic and persistent steps" to obtain the removal of the requirement of a certified check in payment of the one-dollar fee for tax stamps in connection with narcotics registration.

VENEREAL DISEASE RESOLUTION

The House went on record as holding that "the control of venereal disease requires the elimination of commercialized prostitution," and it declared that the practice of medical inspection of prostitutes is "untrustworthy and inefficient" and "gives a false sense of security and fails to prevent the spread of infection." It further declared in the same resolution that "physicians who knowingly examine prostitutes for the purpose of providing them with medical certificates to be used in soliciting are participating in an illegal activity and are violating the principles of accepted professional ethics."

Also pertaining to medical ethics was a resolution adopted by the House in which it expressed "stern disapproval of the practice by any of the members of its component societies of referring patients to commercial organizations, laboratories, or other physicians who advertise to the public and others than the medical profession, who employ so-called steerers or cappers or who pay, or offer to pay, rebates or commissions in any guise whatsoever. . . ."

OHIOANS NAMED BY SECTIONS

The House adopted a resolution directing the Council on Industrial Health to give immediate consideration to publication of information on the health problems concerned with employment of girls and women in industry. It also adopted a resolution advising persons in need of medical care and advice to seek it as early as possible before the military services have obtained their full quota of physicians from civilian practice.

The following Ohio physicians were elected section officers at the Atlantic City meeting: Dr. Roy W. Scott, Cleveland, alternate delegate, Section on Practice of Medicine; Dr. Derrick Vail, Cincinnati, secretary, Section on Ophthalmology; Dr. Sterling H. Ashmun, Dayton, representative to the Scientific Exhibit, Section on Pediatrics; Dr. Carl J. Wiggers, Cleveland, executive committee, Section on Pathology and Physiology; Dr. Joseph P. Evans, Cincinnati, alternate delegate, Section on Nervous and Mental Diseases; Dr. Clyde L. Cummer, Cleveland, delegate, Section on Dermatology and Syphilology; Dr. Paul Arthur Davis, Akron, chairman, Committee on Section Exhibit, Section on Preventive and Industrial Medicine and Public Health; Dr. John T. Murphy, Toledo, secretary, Section on Radiology; and Dr. Theodore A. Willis, Cleveland, vice chairman, and Dr. James A. Dickson, Cleveland, executive committee, Section on Orthopedic Surgery.

TIRE RULES PERTAINING TO PHYSICIANS TIGHTENED

Effective June 30, the Office of Price Administration, Washington, amended tire rationing regulations tightening requirements for physicians. The amendments require that a vehicle operated by a physician or surgeon to be eligible for tires and tubes must be used "exclusively" for professional services instead of "principally" as heretofore.

Colorado Cancels Annual Meeting

The Seventy-Second Annual Session of the Colorado State Medical Society, scheduled for September 23-26, 1942, at Colorado Springs, has been cancelled by order of the Board of Trustees. The House of Delegates of the Society will meet in Denver on the evening of September 23 and the morning of September 24 to transact necessary annual business. The decisions were made primarily because of governmental requests that all conventions not vitally necessary to the war effort be cancelled in order to reduce unnecessary travel. The Trustees, after careful study also determined that because a fourth of the Society's membership would be in military service by mid-September, most of those remaining to care for the civilian population will necessarily be too busy to attend the meeting, and that the exceptionally small registration would be an imposition alike upon speakers and exhibitors.

Coffinberry Named To Commission

George L. Coffinberry, formerly of Cleveland and auditor-statistician at the State Industrial Commission for 17 years, was appointed a member of the Commission July 7, for a six-year term. He succeeds Clarence H. Knisley, public representative on the Commission, who resigned June 30. Knisley is seeking the Democratic nomination for Governor. Other members of the Commission are Will T. Blake and James A. White.

Federal Loan Fund for Medical Students, Among Others, Authorized

Federal funds amounting to $5,000,000 have been appropriated by the Congress in a bill, which has been signed by the President, for the purpose of making loans to students working toward professional and technical degrees—including medical students—on a 12-month accelerated course.

According to press dispatches from Washington, students eligible to borrow this money may be loaned amounts not exceeding tuition and fees plus $25 a month, but not more than $500 in any 12-month period. To obtain a loan, the newspapers reported, a student must agree in writing: 1. To participate until otherwise directed by the chairman of the War Manpower Commission in accelerated courses of study in the authorized fields; and 2. "To engage for the duration of the war in which the United States is now engaged in such employment or service as may be assigned by officers or agencies designated by the chairman of the War Manpower Commission."

Loans may be obtained through the colleges or universities at which the students are enrolled, and arrangements for repayment are also made directly with the institutions. Notes will be made by the students payable to the United States treasury at 2½ per cent interest.

One of the chief reasons for making this appropriation was the fact that students who continue their studies for 12 consecutive months have no opportunity for summer employment to help defray college expenses. In order to continue receiving the federal money, the students must maintain satisfactory standards of scholarship.

New Physical Standards Established By Selective Service

A recent circular from State Selective Service headquarters to local draft boards in Ohio listed 20 categories of physical defects for which men now classified 1-B may be inducted for limited military service. Among them are: Weight and chest measurement deficiencies, loss of an eye or blindness in one eye not due to progressive organic change, impaired hearing of one or both ears not less than 5/20 or complete deafness in one ear, loss of one or both external ears, insufficient teeth if correctible by dentures, lateral deviation of the spine of not more than three inches, loss of a thumb, loss of three fingers if a thumb remains, webbed fingers or toes, moderate deformities of one or both arms, moderate foot and leg deformities, and others.

The circular, No. 412, enjoins local boards not to forward men for induction who are in Class 1-B for reasons other than those given. Typical of the defects which disqualify men for limited service are hernia and positive serology.

WAR NOTES

AN INTERESTING hint as to the whereabouts of at least one Ohio physician on overseas duty was dropped by a British admiral in a Washington press conference. Commenting on the bravery of American naval observers, Admiral Sir Andrew Browne Cunningham mentioned specifically Lt. Comdr. Jerome Hartman, Dayton, who was decorated by the British government for bravery in tending wounded seamen aboard the aircraft carrier Illustrious when she was bombed in the Mediterranean.

Commander Hartman was an orthopedist with Medical Specialist Unit No. 57, U. S. Naval Reserve, which was organized in Dayton by Dr. Walter Simpson and which was one of the first such units to be called into active duty after America entered the war. After several weeks in a Naval hospital on the west coast, it sailed for an unannounced destination in April. Various conjectures as to its location have been made, but this is the first authentic information about any of its members to reach *The Journal* since the unit was ordered overseas.

* * *

Dr. H. A. Brown, Chillicothe, has entered the U. S. Public Health Service with the rank of Past Assistant Surgeon, R., and is stationed at St. Petersburg, Fla., with a coast Guard unit assigned to the Merchant Marine.

* * *

Maj. N. A. Martin, Gallipolis, has arrived in Australia with a contingent of American troops, according to word received by his family.

* * *

Dr. Frank Whitacre, formerly of Metamora, who was imprisoned by the Japs at the fall of Manila, is well and has been returned to Peiping, China, according to a message forwarded to his family by the Red Cross. He was enroute to America from China when he fell into enemy hands.

* * *

The Order of the Purple Heart, decoration for American soldiers wounded in action, has been conferred on Maj. Gordon Seagrave, formerly of Granville, by Lt. Gen. Stilwell, American army commander in India. Dr. Seagrave had been a medical missionary in Burma but became an officer in Stilwell's army when the Burma campaign began. He is a graduate of Johns Hopkins Medical School in 1921.

In its section on "Medicine," *Time* magazine for July 20 prints a letter from Major Seagrave which describes some of the amazing surgical feats performed by himself and his staff while on the retreat of General Stilwell's army from Burma into India. The letter was written by Dr. Seagrave to his wife, who recently returned to the United States (see *The Journal* for May, 1942, page 476) and is living in Granville with the Seagrave children.

Excerpts from the doctor's interesting letter follow:

"We were ordered to follow the Chinese Sixth Army down to Loilem and left some time in February. When we got there they told us we would have to serve the whole army, not just one division. We went back and set up a base hospital in Loilem—bamboo huts and wards on a hill out of town, a lovely joint. . . .

"Dr. Geren, Tun Shein and I, with Ko Nyunt and a Chinese college boy, Low Wang, and twelve nurses started off for Pyinmana. We got to Case's (Baptist Missionary Brayton C. Case, founder of an agricultural school at Pyinmana) place while he was away late at night. The Friends' Ambulance Unit arrived almost immediately and while they went off for casualties we set up. They got back after we had managed to get two hours sleep and from then on we worked steadily, with only two hours rest, for 36 hours. Case moved us off to a child welfare house in town. We had just begun operating there when a lot of Jap planes went over. . . .

"While we were operating after the bombing I had four operating tables going at once with nurses finishing the operations after I had done the most essential part, and Koi (one of the nurses) operating on her own—General Stilwell came in and watched us without our knowing he was there. As soon as he got to Maymyo he sent down the only U. S. Army medical man he had in Burma, a dentist named Captain (now Major) Donald M. O'Hara, and telegraphed Chungking to send down an abdominal surgeon trained at the Mayo Clinic, a Captain John Grindlay, to work with me. Grindlay, after having Koi, Kyang Lewi and Maru Bauk assist him at various particularly bad cases, adopted the whole crowd, and to this day tells everyone they are the best trained nurses he ever saw. . . .

"My first brain cases, etc. were really interesting. The first one had a bullet enter the top of his head and go three inches into his brain. I trephined a huge opening in his skull, opened up the dura mater, washed out a lot of shattered brains and put in a vaseline gauze drain. That night we had to move and took him along with us to a bungalow on a hill. Every time bombers came over, this patient got up and ran half a mile. After five days, during which he had no fever and was walking around everywhere—drain out—we had to send him back.

"Then one day they brought in another just like him, but with lots of other wounds all over his body. I was sure he would die on the table, and there were lots of others who needed immediate operation so I told them to carry him out and let him die in peace. After all the other cases were done, one of the nurses wanted to know what I was going to do for the patient they had dumped behind the kitchen, so I said that if he was still alive to bring him in. I did his brains the same way, fixed up all his other wounds, and three days later we shipped him off in good condition.

"We had loads of variety. There were some quiet spells, but usually we began operating at midnight and on until 8 or 10 in the morning, then the nurses and I would take all the bloody operating stuff to a stream, wash it out, and Emily would resterilize it for use that night. I got four scratches, two on each foot, dropping boxes on myself while moving and then getting streptococcus sloughs from infected patients' blood and pus dropping onto my feet, and they took forever to heal. Yesterday was the first day I didn't have to have a dressing on my right foot for three months.

"We kept moving back. . . .

"About two days later, they decided to abandon Burma and we started off with General Stilwell's crowd. We drove about 150 miles west in the trucks and jeeps and then had to abandon them one by one if they got stalled even for a few moments. We were ordered to save out only what each one thought he could carry up the Chin Hills and abandon the trucks. I knew we would have to take care of all the sick in the company of 105 who followed General Stilwell out, so I ordered each nurse to carry some first-aid articles in addition to her own stuff. So they each took out two jackets, two longyis and a sheet. They had one blanket to each three. We had 19 nurses and seven Friends' Ambulance Unit men and seven of the rest of us, by this time.

"I pretty nearly died that first day, it was so ghastly hot. Next day, and for three more days, we had to march down the middle of a stream. Sand got into our shoes and socks and my sores got four times as big as they had been. Then we had three days on rafts made of rotten bamboos. My bed was six inches under water. Then we crossed the Chindwin and started up and down some awfully steep hills, some 7,000 feet high. I had had malaria every couple of weeks since December and the day we reached the Assam border I couldn't have walked another step. When we reached civilization I was down to 50% hemoglobin, had lost 35 pounds and my legs were swollen to the knees. . . .

"I hope you approve of my joining the Army."

* * *

According to a report of the Surgeon General dated June 29, the health of the Army is excellent. There was no general outbreak of acute respiratory disease during the winter of 1941-42, the report says, and, compared to the previous winter, there was a reduction of 52 per cent for all diseases and 70 per cent for respiratory infections. Since the winter months admission rates for all diseases have declined 25 per cent. Venereal rates, according to the report, are lower than at any time since the present mobilization began, and rates for syphilis at present are the lowest in the history of the Army. A steady decline of gonorrhea cases, amounting to 30 per cent, is reported.

* * *

Dr. Paul Beeson, Wooster, has returned to the United States after 18 months of service at the Red Cross-Harvard hospital, Salisbury, England. He reports experiencing a number of air raids and treating military casualties exclusively. After spending a few weeks in Wooster, he will go to Atlanta, Ga., to become assistant professor of medicine at Emory Medical School.

* * *

A bill pending in the Congress, H. R. 7280, proposes to remove the limit from the extra pay alloted to air corps flight surgeons. Under existing law, flight officers are entitled to extra compensation at the rate of 50 per cent of their regular pay, but in the case of flight surgeons this is restricted to $720 per annum. The proposed law would remove that restriction in the military appropriations bill for 1943.

* * *

Increasing attention is being given by Army medical corps leaders to research in tropical diseases, according to dispatches from Tulane University Medical School, where a group of medical corps officers, including several Ohio physicians, is engaged in special research. Taking a long-range view, the officers in charge of this project are interested, not only in preventing and treating the diseases to which American troops are exposed in the tropics, but also in preventing large-scale spread of these strange infections among the civilian population when the troops return. For this reason it is planned to promote postgraduate courses in tropical medicine for the physicians who remain at home.

* * *

Maj. Eugene Freedman, former roentgenologist at University Hospitals, Cleveland, and now on duty with the United States Army in Australia, has this to say (in a letter home) about life down under:"

"The first few weeks everything was in such a state of poor organization that we did not believe, ourselves, that Australia could hold out. We decided to learn how to eat raw fish and rice (the Japanese food for war prisoners) but now we know that we can continue consuming delicious Australian meat, fruits and vegetables (much tastier than ours, as vegetation grows luxuriantly).

"All the clubs are open to us without membership fees . . . We are very much ashamed of ourselves for not being more homesick than we are, but everybody here tries to do his best to make us feel at home.

"Of course, we don't know what may happen here, but we are not afraid of anything. We know that no matter what may happen in the near future, win we shall. But we need all the supplies from home because we will have to take back the beautiful Dutch East Indies and the Malay States."

Licenses to Practice Medicine Granted to 247 at Recent Meeting of Board; Names of Those Granted Certificates

LICENSES to practice medicine and surgery were granted to 247 applicants by the State Medical Board of Ohio at its meeting in Columbus, July 20-21. Also licensed were eight osteopaths, four chiropractors, six mechanotherapists, 15 chiropodists, 15 masseurs, and two cosmetic therapists.

Dr. Frank R. Dutra, of Cleveland, a graduate of Northwestern University scored 90.5 per cent in the examination, the highest grade among the doctors of medicine. Second place was won by Dr. Norman A. Schwartz, Columbus, with a grade of 88.6, and third honors went to Dr. Fountaine C. Beattie, Jr., Toronto, whose grade was 88.2. The latter two physicians are graduates of the Ohio State University College of Medicine.

The following doctors of medicine were granted licenses:

Ohio State University: Garrett B. Ackerman, Columbus; Nelson J. Adelstein, Cleveland; Henry W. Allison, Oak Hill; Deane B. Armour, Bradford; Clarence Edward Ash, Cincinnati; Frederic Firestone Balz, Columbus; Fountain Claibourne Beattie, Jr., Toronto; William Robert Beery, Columbus; Benjamin Berger, Cleveland; Meyer Berkowitz, Cleveland; John Hollingsworth Blackburn, Kalida; Jane Blue, Columbus; Joseph Henry Brancamp, Norwood; Robert Burnell Burrell, Columbus; Charles F. Clark, Columbus; Benj. Ralph Cohen, Cleveland; Lewis Cohen, Columbus; Margaret Mary Conlin, Toledo; Wm. Lee Craver, Columbus; Paul Huston Dillahunt, Columbus; Theodore J. Dodd, Steubenville; James Stanley Eley, Lima; Geo. P. Fitzgerald, Springfield; Chas. Edw. Fralick, Springfield; Albert C. Frell, Warren; Chas. Elmer Geckler, Waynesburg; Richard Leroy Gilson, Napoleon; Naoma D. Green, Hiram; Arthur D. Halley, Akron; Chas. W. Harding, Columbus; Joseph Martin Herbert, Columbus; Thomas Michael Hughes, Columbus; Michael John Hunyadi, Canton; Robert Burdette Ireland, Columbus; Guy Eugene Irwin, Wilmington; Mason Scott Jones, Columbus; Morris Wall Keller, Cleveland Hts.; Sidney Cliffton Keyes, Youngstown; Sidney Milton Lobe, Cleveland; Donald Burrell Lucas, Cloverdale; William Bernard Ludwig, Paulding; Francis Willard McCoy, Barberton; Sol Maggied, Columbus; Howard William Mahaffey, Columbus; Dean Willard Mallett, Springfield; Robert Lahm Marshall, Butler; William Duane Monger, Columbus; Peter Henry Mulder, Jr., Detroit; Allen Clifford Neiswander, Pandora; Floyd Gerald Niswander, Toledo; Andrew Jackson Owens, Youngstown; Vincent George Peiffer, Genoa; William Edw. Pfaadt, Cambridge; Eileen Audrey Phillips, Athens; Ralph Louis Phillips, Columbus; James Harold Pollock, St. Clairsville; Jarko Radancevich, Columbus; Samuel John Randall, Jr., Columbus; Robert Arthur Ringer, Cambridge; Frank Bradway Rogers, Hamilton; Gale Ferguson Ross, Cedarville; Sydney Schall, Toledo; Leroy Bernard Schumaker, Lorain; Norman Alvin Schwartz, Columbus; Richard Lennox Shorkey, Mt. Vernon; Wilson Pedrick Smith, Proctorville; Horatio Adolph Spector, Ironton; Willard C. Stoner, Jr., Cleveland; Philip Roger Vandeman, Dayton; Orval Jos. Walley, Columbus; Frederick Alden Waltz, Columbus; William Moore Wells, Columbus; John Monroe Wilkins, Marysville; Joseph McMilton Wilson, Westerville; Maurice Goss Wince, Akron; Richard Lee Woodyard, Columbus; Sam Zlotnick, Youngstown.

Western Reserve University: Harley Stewart Adams, Cleveland; Leonard Jack Alperin, Cleveland; Perry Richard Ayres, Cleveland; Charles Samuel Becker, Cleveland; Margaret Elizabeth Belt, Cleveland; Thomas Geo. Bidder, Cleveland; Paul Albert Bischoff, So. Euclid; Jos. Montgomery Black, Cleveland; Thomas Harry Bottomley, Cleveland; Benj. Sidney Brown, Jr., Cleveland; Robert James Bryan, Cleveland; Robt. Oberlin Burry, Cleveland; Thomas Martin Cable, Cleveland; Bernard Arduino Ceraldi, Cleveland; John William Derr, Cleveland; Walter Vincent Edwards, Jr., Youngstown; John Aris Finkbeiner, Cleveland; Manley Leach Ford, Summit; Robt. Dalzell Fulton, Cleveland; Walter Lloyd George, Cleveland; Frank R. Hanahan, Jr., Cleveland; William John Hegedus, Columbus; Edw. Jos. Hill, Jr., Cleveland; William Henry Richard Howard, Columbus; James Andrew Karson, Cleveland; Edwin S. Kessler, Cleveland; Robt. Chapman Kirk, Cleveland; Howard David Kohn, Cleveland; Paul Milton Kohn, Cleveland; Wm. Siegfried Koller, Dayton; Saul Kottler, Cleveland; John Shriver Landes, New London; Norman Lewis, Cleveland; R. Wenner Machamer, Tiffin; Leo Madow, Cleveland Heights; James Franklin Martin, Cleveland; Sam Browning Maxwell, Canton; John Messina, Cleveland; Clarence John Morell, Akron; Rocco Louis Motto, East Cleveland; Myrl DeFord Musgrave, Cleveland; Carl Lorenz Petersilge, Lakewood; Frank Jos. Rack, Cleveland; Edward Stanley Rambousek, Cleveland; Margaret Ruth Read, Akron; Robert Rogoff, Cleveland; Benjamin Root, Cincinnati; Edward Chester Sargent, Jr., Lakewood; Samuel Merle Schall, Cleveland; George Newton Spears, Cleveland; Shelley Marcellus Strain, Youngstown; Alfred Melville Taylor, Cleveland; Lee Chester Underwood, Jr., Girard; Lewis W. Whiting, Cleveland; Arthur Foraker Young, Jr., Cleveland.

University of Cincinnati: George Yoshimichi Abe, Cincinnati; Alfred Guerin Allen, Cincinnati; Herbert V. Allen, Jr., Cincinnati; Robert Gregory Armstrong, Cincinnati; Albert I. Aronoff, Cincinnati; Chas. Wade Asbury, Hamilton; Ruth Braunlin Bennett, Cincinnati; Joe Edwin Brann, Cincinnati; Betty Jane Brechner, Cincinnati; Alvin Wayne Bronwell, Cincinnati; Frank Andrew Cellar, Jr., Cincinnati; Robert Coman Cogswell, Jr., Cincinnati; Morris Wm. Dexter, Cincinnati; Louise Yvonne DuBrul, Cincinnati; Philip Augustus Eckert, Maumee; Aaron Joel Essig, Cincinnati; Howard Philip Fischbach, Jr., Cincinnati; Chas. Henry Foertmeyer, Cincinnati; Ernest Lewis Ford, Jr., Dayton; Walter Benedict Frommeyer, Jr., Cincinnati; Martin Gershman, Cincinnati; Lawrence Jos. Gibbony, Cincinnati; Chas. Forrest Gibbons, Toledo; Jerome Giuseffi, Jr., Cincinnati; Clarence Irwin Haeberle, Cincinnati; Robt. Allen Haines, Cincinnati; Otto Warren Hattendorf, Cincinnati; Robt. Burritt Hiatt, Wilmington; Richard Augustus Hoffman, Cincinnati; Robt. J. Hoffmann, Cincinnati; Curwood Rusk Hunter, Cincinnati; Wm. Samuel Ittleman, Cin-

War Paint

In the midst of the blitz in England a lipstick became a symbol of democracy, bravely worn in defiance of that "wicked man's" attempt to shatter morale. Early in the history of the U. S. S. R. women protested against a ban on cosmetics, and it was lifted. These things are easy to understand when one reflects that cosmetics are an intimate part of a woman's life. They are essential to her well-being, her sense of personal fitness. When a woman knows she looks pretty she can face almost any situation with equanimity and courage. She needs her "war paint"; it bolsters her morale. During the telling months ahead our industry may be deprived of certain raw materials. Packages and containers may have to be changed. Any great emergency is a test of resourcefulness. We believe that our industry will not be found lacking in that sterling American quality. Our research facilities are directed towards finding alternative raw materials that will be at least as satisfactory as those they replace. Come what may, we'll do our best to continue to supply American women with those aids to good grooming, those props to personality, that in their modest way contribute so much to national morale.

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Cleveland—Summer radio broadcasts of the Division of Health of the Department of Public Health and Welfare included "Vacation Health Hazards," and "Heed the Weed" on July 18, over radio station WGAR. Participants included Dr. Harold J. Knapp, Commissioner of Health and Dr. A. W. Thomas, chief, Subdivision of Child Hygiene.

News Notes

Bellaire—Dr. Homer West has been reappointed health commissioner of Belmont County.

Cincinnati—Dr. Roy L. Kile has been appointed a passed assistant surgeon in the U. S. Public Health Service, and assigned to Hot Springs, Ark., in the venereal disease control division.

Cleveland—Dr. Harry V. Paryzek, past president of the Ohio State Medical Association, urged a graduating class of 33 nurses to enter military service, in the principal address at the commencement exercises of the St. Alexis Hospital School of Nursing.

Columbus—"Progress in Pediatrics and Control of Contagious diseases in the Last Century", was the topic discussed by Dr. Elmer G. Horton, professor emeritus of pediatrics, Ohio State University College of Medicine, at a meeting of the Alumnae Club of the University.

Dayton—Four local members of the Civitan Club conducted a discussion of "What's New in Medicine" at a meeting of the club. The participants were Dr. E. K. Finley, Dr. Homer D. Cassel, Dr. P. H. Kilbourne and Dr. Elmer C. Loomis.

Fostoria—Physicians of Fostoria recently gave a dinner party in honor of Dr. W. G. Hartnett who has become a member of the medical staff of the U. S. Veterans' Bureau. He is now located at Waco, Texas.

Fremont—The duties of the various members of the staff of the Sandusky County Health Department were explained by Dr. F. M. Teeple, county health commissioner, at a meeting of the Kiwanis Club.

Marion—A talk on various types of recently-developed drugs was made by Dr. Richard L. Morgan at a meeting of the Lions Club.

Montpelier—The work of Dr. Perrin Long, a native of Bryan, in the development of the sulfa drugs, was praised by Dr. Howard J. Luxan at a meeting of the Bryan Rotary Club.

Napoleon—Dr. Chas. M. Harrison, dean of Henry County physicians, has been practicing there for 50 years.

Oxford—Dr. Parke G. Smith, Cincinnati, was named chairman of the Board of Trustees of the McCullough Memorial Hospital at its organization meeting. Other officers are: Dr. H. A. Moore, vice-chairman; Dr. C. I. Stafford, secretary, and H. C. Cramer, treasurer. Dr. T. A. Munns is the fifth member of the board.

Piqua—Dr. John T. Quirk spoke on "Diseases of the Heart", at a meeting of the Rotary Club.

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In Memoriam

William Gibson Brayton, M.D., Carey; Medical College of Ohio, Cincinnati, 1873; aged 93; died June 7. Dr. Brayton graduated from Wittenburg College and then taught school before studying medicine. Following a trip to Missouri on horseback in 1869, he began to study medicine under his uncle, Dr. Asa Brayton, and later finished his professional training at Cincinnati. In 1881 he took postgraduate work at Bellevue Hospital, New York. He had practiced also in Fostoria and Arcadia before moving to Carey. He is survived by a son, a daughter, two sisters, one brother, one grandchild, and four great-grandchildren.

Warren C. Breidenbach, M.D., Dayton; University of Michigan Medical School, Ann Arbor, 1917; aged 48; member of the Ohio State Medical Association and Fellow of the American Medical Association, American College of Physicians, and American College of Chest Physicians; died June 30. Dr. Breidenbach was widely known as a specialist in tuberculosis and had served for many years as superintendent of Stillwater Sanatorium, Montgomery county. He was one of the early users of pneumothorax for the treatment of tuberculosis and was a pioneer in the diagnostic use of planography in the United States. He was formerly a member of the Ohio Public Health Council. Survivors include his widow, two sons and a daughter.

George Ruen Clayton, M.D., Lima; Northwestern University Medical School, Chicago, 1898; aged 69; member of the Ohio State Medical Association and the American Medical Association, diplomate of the American Board of Otolaryngology; died June 13. A veteran of the Spanish-American war, Dr. Clayton served for 12 years as an Army medical officer. He served as president of the Allen County Academy of Medicine in 1919. He was also active in Masonry, being a 32nd degree Mason and Knight Templar. He is survived by his widow, two sisters, and a brother.

Elijah Tennyson Dando, M.D., Wellston; Jefferson Medical College, Philadelphia, 1900; aged 66; former member of the Ohio State Medical Association and American Medical Association; died June 27. A native of Wales, Dr. Dando came to America as a boy. He was a graduate of Lebanon College, Lebanon, Ohio, and took his medical training first in the office of a Wellston physician and later at the Kentucky School of Medicine, Louisville, before entering Jefferson. Dr. Dando was the oldest practicing physician in Wellston. He was widely known as a musician, and during the Wilson administrations he served as Wellston's postmaster. He is survived by two sons, three daughters, a sister, and two brothers.

Alfred Deyo, M.D., Derby; Ohio Medical University, Columbus, 1893; aged 76; died July 1. Prior to his retirement two years ago, Dr. Deyo practiced in Derby for 49 years. Survivors include his widow, a daughter, two sons, and several grandchildren.

Luther Ellis Evans, M.D., West Jefferson; Starling Medical College, Columbus, 1900; aged 67; former member, the Ohio State Medical Association and the American Medical Association;

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died June 25. Dr. Evans practiced first at Alton and later at West Jefferson. He was active in civil and political affairs, serving on the boards of education and public affairs for Madison county. He was prominent in Republican circles and in 1920 was a delegate to the convention which nominated Warren G. Harding, a personal friend of Dr. Evans, for President. In 1921 Dr. Evans was named president of the Madison County Medical Society. He was active in business life, too, being president and principal stockholder of a manufacturing firm and a utility company. Survivors include a stepson, two brothers, a half-sister, and two half-brothers.

Cora D. Fenton, M.D., Cleveland; Cleveland Medical College, 1893; aged 83; died June 13 in California. She practiced medicine in Cleveland for 24 years prior to her retirement in 1917. Survivors include one daughter and three granddaughters.

Clement C. Fihe, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1900; aged 65; member, the Ohio State Medical Association, and Fellow of the American Medical Association and American College of Physicians; died June 16. Dr. Fihe took pre-medical studies at Earlham College, Richmond, Ind., and did postgraduate medical work at clinics in Vienna and Berlin before beginning his practice in Cincinnati. He is survived by two sisters and three brothers.

Evan Griffith Galbraith, M.D., Toledo; University of Michigan Medical School, 1916; aged 54; member of the Ohio State Medical Association and Fellow of the American Medical Association, diplomate of the American Board of Otolaryngology, and Fellow of the American College of Surgeons; died June 14 at Devil's Lake, Mich., following a crash which involved his auto and a locomotive. Dr. Galbraith was widely known as an otolaryngologist and held membership in the American Broncho-Esophagological Association and the Detroit Otolaryngological Society. A medical officer in the first World War, he served with the American and British armies. He is survived by his wife, one daughter, two sons, and a sister.

Olin Burr Hall, M.D., Dayton; University of Cincinnati College of Medicine, 1922; aged 50; member of the Ohio State Medical Association and the American Medical Association; died June 8. Dr. Hall took his premedical training at the University of West Virginia, of which state he was a native. He belonged to Nu Sigma Nu professional fraternity. Survivors include his wife, two sons, three daughters, his father, and two brothers.

John C. Hathaway, M.D., Mechanicsburg; Starling Medical College, Columbus, 1898; aged 67; died July 19. Dr. Hathaway had practiced medicine in his community for more than 40 years and was an active Mason. Survivors include his widow, a son, Dr. John Hathaway, Columbus, and two sisters.

Earl Chester Hinman, M.D., North Canton; Ohio Medical University, Columbus, 1898; aged 77; member of the Ohio State Medical Association and the American Medical Association; died June 30. He is survived by his wife, one son, three brothers, Dr. Elmer Hinman, of New York, and Dr. A. V. Hinman, Youngstown, two grandchildren, and one great-grandchild.

Charles Edwin Iliff, M.D., Cincinnati; Miami Medical School, Cincinnati, 1900; aged 68; member of the Ohio State Medical Association and the American Medical Association; died July 11. Dr. Iliff was a member of the American Public Health Association and the Association of Life Insurance Medical Directors, and he was formerly president of the Cincinnati Obstetrical Society. He served as a draft board examiner in both the first World War and the present war, and he was a Syrian Shriner and a member of Scottish Rite. Survivors include his wife, Dr. Frances Jessie Haag Iliff, one son, Dr. Charles Edwin Iliff, Jr., Baltimore, Md., three sisters, and two grandchildren.

William Henry LaFerte, M.D., Canton; Michigan College of Medicine, Detroit, 1885; aged 81; died June 16. Widely known as a musician and composer as well as a physician, Dr. LaFerte

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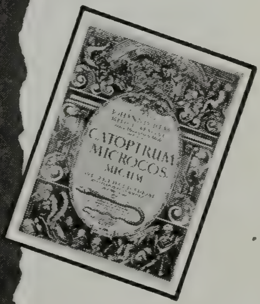

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had practiced in Canton 33 years. He is survived by his widow, a daughter, one sister, and one brother.

William Taylor Lindsay, M.D., Cincinnati; Starling Medical College, Columbus, 1893; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died June 14. Dr. Lindsay first practiced in Locust Ridge, moving to Cincinnati in 1896. For 31 years he was physician for the Hamilton County jail and for 10 years he was also physician to federal prisoners in Cincinnati. He retired from practice in 1941, moving to his farm near Moscow, Ohio. Active in Masonry, he was a Knight Templar. He is survived by his wife, who is an attorney.

Frank Rawlins Makemson, M.D., Bellefontaine; Ohio Medical University, Columbus, 1900; aged 69; former member of the Ohio State Medical Association and the American Medical Association; died June 10. Dr. Makemson practiced in DeGraff and Lewistown for 12 years before locating in Bellefontaine. He was an Army medical corps officer in the first World War, and in 1923 he served as president of the Logan County Medical Society. For a number of years he was alternate delegate from Logan County to the State Association's House of Delegates. He is survived by his widow, one son, a sister, and one grandchild.

Harvey Allison Myers, M.D., Paris; Ohio Medical University, Columbus, 1900; aged 70; died May 30. Dr. Myers had practiced medicine in Paris for 41 years. He is survived by his widow, one daughter, a sister, a brother, four grandchildren, and three great-grandchildren.

John Wesley Tippie, M.D., Cleveland; Ohio State University College of Medicine, 1908; aged 55; died June 26. A former Army medical officer and U. S. Public Health Service Surgeon, Dr. Tippie had practiced 20 years in Cleveland. His widow survives.

Charles D. Watkins, M.D., Etna; Columbus Medical College, 1886; aged 78; died June 27. Dr. Watkins had practiced in Etna and vicinity 55 years and was known through that section of the state as one of its early "horse and buggy doctors." His deathbed order to cancel all bills owing him attracted wide attention. He was a Shriner and Knight Templar. He is survived by his widow, three daughters, a son, Dr. Charles H. Watkins, Rochester, Minn., nine grandchildren, and one great-grandchild.

Homer D. Williamson, M.D., Bethany; Starling Medical College, Columbus, 1904; aged 63; former member of the Ohio State Medical Association and the American Medical Association; died June 16. Dr. Williamson took pre-medical studies at Ohio State University. He had practiced throughout Butler County and in sections of Warren County for 34 years. Survivors include two sisters.

John Wickensimer, M.D., Chicago; Chicago College of Medicine and Surgery, 1913; aged 56; died June 18. Fellow American Medical Association. Dr. Wickensimer was a native of Pickway County and his late parents lived in Gahanna. He is survived by his widow and four brothers.

A. M. A. Appeals Anti-Trust Case

The American Medical Association has appealed to the Supreme Court of the United States a recent decision of the United States Court of Appeals which upheld a lower court decision convicting the Association of violation of the Sherman Act, according to press dispatches from Washington. In conjunction with the Medical Society of the District of Columbia, the AMA has petitioned the Supreme Court to review the appellate court's decision. Whether the high tribunal will review the case will be announced in October. The Association's petition, according to press association reports, asserts that "the indictment did not allege nor the evidence prove that the activities of petitioners were exercised or used in such a way as to affect the market either by fixing prices or suppressing competition."

Springfield—Dr. Foster Hampton, formerly associate professor of pathology at the Ohio State University College of Medicine, has been appointed full-time pathologist at the Springfield City Hospital.

Lorain—Dr. David Thomas talked on the subject "This Interests Me Most", at a meeting of the Round Table Club.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D, CINCINNATI)

CLINTON

Dr. Robert Conard reported on the American Medical Association meeting at the session of the Clinton County Medical Society held July 7 at the General Denver Hotel, Wilmington. Following that there was an informal discussion on civilian medical care and Army medical service.—James E. Rose, M.D., secretary.

HIGHLAND

Highland County Medical Society members heard a paper on "The Sulfonamides" by Dr. C. C. Sherburne, Columbus, President-Elect of the Ohio State Medical Association, at their regular monthly meeting July 1 at the Hotel Parker in Hillsboro. The program followed a noon luncheon. —News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

DARKE

Dr. J. E. Gillette, Versailles, was host to the Darke County Medical Society at his home for an evening meeting July 23. Dr. Gillette had recently obtained a set of recorded heart sounds, murmurs, and arrythmias, and the members listened to these with stethoscopes as part of the program.—W. D. Bishop, M.D., secretary.

MIAMI-SHELBY

Dr. Warren G. Harding II, Columbus, described life and medical practice in Australia at the recent joint meeting of the Miami and Shelby County Medical Societies at the Sidney Country Club.—News clipping.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

LOGAN

Regular monthly dinner meeting of the Logan County Medical Society was held June 3 at the Ingalls Hotel, Bellefontaine. Dr. L. E. Traul, county health commissioner, told members of the society about recent gifts from two residents of the county through which the health department has been able to acquire blood plasma, antitoxins, large quantities of bandages, sterilizing equipment and other materials for use in event of disaster.—News clipping.

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STARK

The annual picnic of the Stark County Medical Society was held at Congress Lake Country Club June 17. Besides afternoon golf, there were card games in the afternoon for both the members and their wives. A 6 p.m. dinner concluded the day's festivities.

MARION

Treatment of heart disease was the subject of Dr. R. W. Kissane, Columbus, when he addressed the Marion Academy of Medicine at its regular meeting June 2 at Marion City Hospital.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE

MAHONING

Members of the Mahoning County Medical Society participated in their annual golf tourney July 16 at the Youngstown Country Club.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

J. V. Nelson, superintendent of Bellaire Public schools, spoke on "Public Health in Our Schools" at a dinner meeting of the Belmont County Medical Society at Belmont Hills Country Club June 19. Members of the society's Auxiliary held a business meeting during the session and later joined their husbands for dinner. On June 25 the Auxiliary held a dessert-bridge at the home of Dr. and Mrs. R. H. Wilson, Martins Ferry, proceeds of which were used to purchase supplies for a field hospital unit.—News clipping.

TUSCARAWAS

Dr. George Kistler, Newcomerstown, and Dr. C. D. Kurtz, New Philadelphia, were feted and welcomed into the group of Tuscarawas County physicians who have practiced longer than 50 years at a special meeting of the County Medical Society June 11 at Hotel Reeves, New Philadelphia. The meeting included a joint dinner for the Society and its Auxiliary.—D. M. Ceramella, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

WASHINGTON

Coordinated community planning against tuberculosis was outlined by Dr. H. Kennon Dunham and Dr. Charles A. Neal, both of Cincinnati, at a joint meeting of the Washington County Medical Society and the Washington County Tuberculosis and Health Association June 10 at the Hotel Lafayette in Marietta.—News clipping.

Ninth District

(COUNCILOR: G. R. MICKLETHWAITE, M.D., PORTSMOUTH)

SCIOTO

The Hempstead Academy of Medicine held its annual picnic in conjunction with its Auxiliary at Raven Rock Country Club July 23. Sports and an evening picnic lunch were highlights of the program.—S. Asch, M.D., secretary.

In June the Auxiliary had a tea in honor of Portsmouth's nurses at the home of Dr. and Mrs. Gilbert Micklethwaite. It also had a meeting to which wives of Ironton physicians were invited for the purpose of considering becoming members-at-large.—News clipping.

Tenth District

(COUNCILOR: H. M. CLODFELTER, M.D., COLUMBUS)

MADISON

Dr. E. H. Baxter, Columbus, was guest speaker at the meeting of the Madison County Medical Society June 25 at the home of Dr. W. H. Lee, Plain City.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

More than 60 physicians and their wives attended the dinner party given by the Women's Auxiliary to the Lorain County Medical Society at the Lorain Country Club recently. Mrs. Eileen Benninghoff, Rocky River, reviewed the current best seller, "Along These Streets."—News clipping.

RICHLAND

The annual picnic of the Richland County Medical Society was held at Shelby Country Club July 2. Golf and dinner were features of the program.—Charles Brown, M.D., secretary.

WAYNE

Three physicians of Wayne County who have practiced for more than 50 years—Dr. A. A. Brooks, Orrville, and Dr. J. J. Kinney and Dr. R. C. Paul, Wooster—were honored at the annual picnic of the Wayne County Medical Society held at Applecreek State Hospital June 26. Following an outdoor dinner, at which the physicians were guests of Dr. and Mrs. A. T. Hopwood, superintendent and matron, Dr. Paul recounted anecdotes of the early days of his practice.—R. C. Paul, M.D., secretary.

Ravenna—Dr. Lena M. English, who practiced medicine in India for 12 years, is resident physician for the Kent State University student health service.

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Do You Know - - -

Dr. H. M. Platter, Columbus, secretary of the State Medical Board, was elected a member of the National Board of Medical Examiners at its Annual Meeting in Atlantic City, June 7. He succeeds Dr. J. H. J. Upham on the National Board as one of the five representatives from the Federation of State Medical Examining Boards of the United States. Dr. Platter was elected for a full term of six years.

* * *

Dr. John B. Morgan, Cleveland, was chosen as President of the American Medical Golfing Association at its 28th Annual tournament at the Seaview Country Club, Atlantic City, June 8. He will serve until the A.M.G.A. tournament to be held in San Francisco in June, 1943.

* * *

New officers of the Alumni Association of Western Reserve University School of Medicine are: Dr. Roy W. Scott, Cleveland, president; Dr. Argyl J. Beams, Cleveland, first vice-president; Dr. A. D. Cook, Dayton, second vice-president; Dr. Farrell T. Gallagher, Cleveland, secretary-treasurer and Dr. Harry Weaver, Alliance, trustee.

* * *

Dr. William P. Wherry, Omaha, Nebraska, executive secretary of the American Academy of Ophthalmology and Otolaryngology for 35 years, died June 13.

* * *

Membership in the Ohio State Medical Association on July 20, 1942, was 6,575, including 530 who dues had been waived because of their service with the armed forces. Comparable figures for the same date a year ago were 6,437 and 200. Membership in the Association on December 31, 1941 was 6,604, including 278 whose dues were waived because of military service.

* * *

Dr. G. F. Moench, formerly health commissioner of Delaware and Union counties, and more recently acting director of the Calhoun County Health Department, Marshall, Mich., was recently appointed director of the Hillsdale County Health Department, Hillsdale, Mich. He succeeds Dr. J. P. Gray, appointed Dean of the Medical College of Virginia, Richmond, Va.

* * *

The Commonwealth Fund of New York announces that it is offering through the Pan American Sanitary Bureau, the international health agency of American republics, fifteen fellowships of one year's study of public health subjects or postgraduate medical courses to properly qualified persons who are citizens of the other American republics.

* * *

Dr. J. H. J. Upham, Columbus, Dean Emeritus of the Ohio State University College of Medicine, and a former President of the American Medical Association and the Ohio State Medical Association, has been named Chairman of the Board of Directors of the Planned Parenthood Federation of America, Inc.

* * *

The National Foundation for Infantile Paralysis has made a five-year $300,000 grant to Johns Hopkins University School of Medicine, Baltimore, for a study of infantile paralysis and related viruses. Work at a center to be set up will be supervised by Dr. Kenneth F. Maxcy, professor of epidemiology in the School of Hygiene and Public Health.

* * *

Dr. Albert J. Marks, last surviving member of the Toledo post of the G.A.R., celebrated his 100th birthday on July 5. Dr. Marks practiced medicine in Toledo for over 50 years, before he retired at age 92.

* * *

Dr. Helena T. Ratterman, Cincinnati, is the new President of the American Medical Women's Association, having been elected at the Association's Annual Meeting at Atlantic City in June.

* * *

A portrait of Mrs. Francis Fleury Prentiss, noted for her gracious personality and philanthropic deeds, has been presented to the Cleveland Medical Library Association.

* * *

Dr. H. W. Wertz, Montpelier, has just completed his 52nd year as a practicing physician in Williams County.

* * *

A record number of claims for workmen's compensation in 1942 is forecast by an 18 per cent increase in claims filed in the first six months of this year compared with the same period of 1941. With 149,642 claims received by the Commission from January 1 to June 30, the record claims total of 286,010 established in 1941 will probably be surpassed, as statistics show peak "injury months" usually are in the Fall of the year.

* * *

Henry N. Hooper, superintendent of Cincinnati General Hospital, has been appointed a consultant on hospital administration to the Medical Division of the Office of Civilian Defense and is stationed in Washington.

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154—Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60 Proc. Soc. Exp. Biol. and Med., 1934, 32, 241 —N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592*

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The Physician's Bookshelf

Ohio in Homespun and Calico, by I. T. Farary ($2.00. *Garrett & Massie, Richmond Virginia),* is a saga of the common people who labored and suffered as pioneers to conquer the wilderness of the Ohio country. Should be in the library of every citizen in the state.

Ambassadors in White, the Story of American Tropical Medicine, by Charles Morrow Wilson ($3.50. *Henry Holt & Company, New York),* tells the brilliant story of the struggle in Central and South America and the West Indies, a book that each one of us should read.

Health Education and the Public, by W. W. Bauer, M.D., and Thomas G. Hull, Ph.D. ($2.75. *Second Edition, W. B. Saunders & Co., Philadelphia),* is a factual handbook for all workers in the field. These two authorities from the headquarters of the American Medical Association have presented a clear and practical description of methods for organizing and conducting the many branches of an effective health education program. Each county society will want this book in the hands of its civic committee and its program committee.

The Clarks, An American Phenomena, by William D. Mangan ($2.50. *Silver Bow Press, New York City),* is an intensely interesting, priceless social document. It represents a new type of biography which may have an increasing role to play in our society.

Heredity, Food and Environment in the Nutrition of Infants and Children, by George Dow Scott, M.D. ($5.00. *Chapman & Grimes, Inc., 30 Winchester St., Boston, Mass.),* is a book that cannot be recommended too highly because of its comprehensive discussion of the problem. His thesis is that absolute health for the young child is to be achieved only through the correction and strengthening of metabolism. He treats the subject of nutrition as not only involving the chemistry of foods, but the individual child's entire physical and psychic being. This is the book to give to mothers.

The Modern Attack on Tuberculosis, by Henry D. Chadwick, M.D., and Alton S. Pope, M.D. ($1.00. *Commonwealth Fund, New York City),* raises the question of what are the next steps in the eradication of tuberculosis. We have the tools. How can we get them into use? The authors discuss the current problem of control and the operation of an effective regional control program. Modern procedures are stressed, especially with regard to the discovery and control of the disease by age, sex, occupation and within the family, and with regard to the function of the Tuberculosis Sanitarium.

Collected Papers of the Mayo Clinic and the Mayo Foundation ($11.50, *W. B. Saunders & Co., Philadelphia),* presents the papers from the staff for 1941. Of the 659 articles, 64 appear in full, 86 by abridgements, 67 by abstract, and 442 by title only. This is the thirty-third volume and maintains the standards set by previous years.

Night of Flame, by Dyson Carter ($2.50. *Reynal & Hitchcock, Inc., New York City),* is a novel presenting the pageant of a great hospital. The hero is a young Dr. Stevens and the story is about him and the women in his life. Is a pleasant two hours' entertainment.

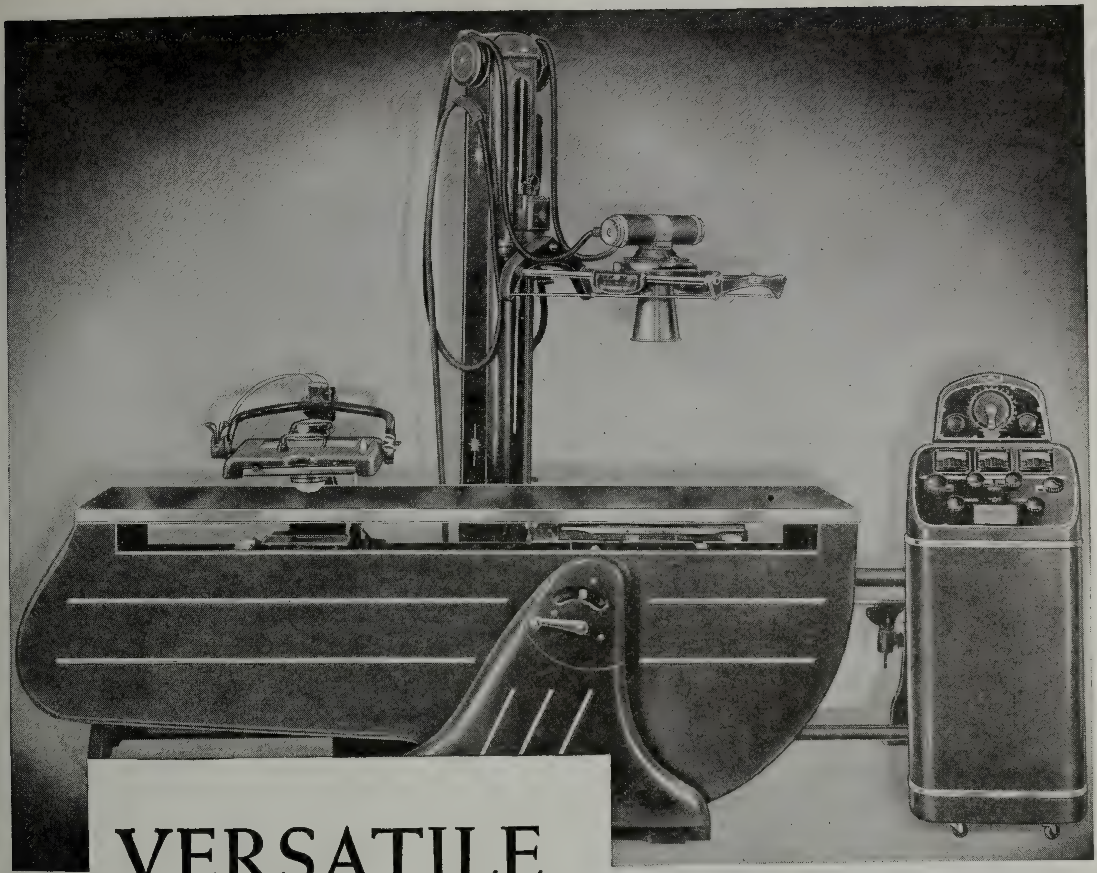
Marriage and Family Life, by Gladys Hogland Groves ($3.50. *Reynal & Hitchcock, Inc., New York City),* is a thoroughly sane yet simply written book providing a layman with as much information about being married and being a parent as could be put in one volume.

Babies Are Fun, by Jean Littlejohn Aaberg ($1.00. *William Penn Publishing Corp., New York City),* begins when the doctor says, "You're going to have a baby," until the same baby is two years old. A wholesome, optimistic manual.

Paregon, *(Mead Johnson & Company, Evansville, Indiana),* is the new edition of this beautiful book of pictures of works of art produced by physicians. It represents a part of the movement which undertakes to encourage art by physicians and to increase the appreciation of art by patients.

Directory of Medical Specialists Certified by American Board, 1942. ($7.00, *Columbia University Press, New York City),* is the second edition containing some 4,000 new names, making a total of 18,000 certified diplomates. This growth in the Directory through examinations indicates that certification has met with a distinct response on the part of the Profession. Doctors overly enthusiastic, however, have always been known as "joiners". Time will tell how much this certification has done for the American people; in the meantime, if you want to know who is certified, this is the official list.

Athletic Injuries: Presence, Diagnosis and Treatment, by Augustus Thorndike. ($3.00. *Second Edition, Lee and Febiger, Philadelphia, Pa.),* is a review of the monograph dealing with the author's experience with the problems of injuries received in American college sports. It has been brought up to date and the chapter on physiotherapy has been extensively revised by Dr. Arthur Watkins. The work gives us a good survey of the field as well as the experiences at Harvard University.



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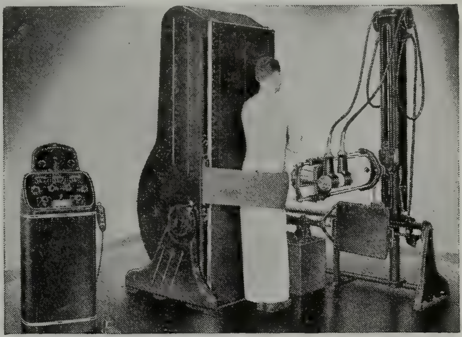

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Physicians who are going into military service and who hold Group Hospital Care policies for the protection of their families should get in touch with the corporations issuing such policies to ascertain their status when the policy-holder goes on active military duty. Most of the hospitalization service associations have an arrangement whereby the policy-holder can be put on an inactive basis for the period of his military service, without payment of fees, with a provision for reinstatement within a certain time after discharge by resuming payment of fees. The family part of the contract can be continued by paying a reduced monthly subscription fee.

Eighth District Meeting

A meeting of the Eighth Councilor District of the Ohio State Medical Association was held at Rocky Glen Sanatorium, McConnellsville, June 25. Speakers included: Colonel H. E. Boucher, Columbus, chief, Medical Division, State Selective Service, "Present Medical-Military Situation"; Dr. Robert Conard, Wilmington, chairman, Ohio Committee for the Procurement and Assignment of Physicians, "Medical Profession in the War"; Dr. M. B. Rusoff, Columbus, medical examiner, State Industrial Commission, "Trends Toward Socialized Medicine"; Dr. Oscar Rosenow, Columbus, "Diseases of the Stomach With Special Reference to Pathogenesis of Pain". Approximately 100 physicians from Southeastern Ohio attended the session.

Grants for Blood Plasma Work

A bulletin from the Office of Civilian Defense sets forth the regulations under which hospitals may apply for grants of federal funds for the equipment and maintenance of blood plasma banks. To obtain money for this purpose a hospital must have at least 200 beds, must be approved by the American College of Surgeons and the American Medical Association, and must have a qualified pathologist on its staff. In order to apply for such a grant, Ohio hospitals should submit plans for their plasma banks to Lt. Col. Williams S. Keller, OCD Regional Medical Officer, 1530 Standard Bldg., Cleveland.

Dr. Urben Named Director

Dr. Walter J. Urben, a former Ohio physician, was recently appointed Director of Mental Hygiene in the Wisconsin State Department of Public Welfare. Dr. Urben was on the staff of Massillon State Hospital from 1932 to 1938, and from that date until January, 1940, he was medical director of Fair Oaks Villa, Cuyahoga Falls. Since then he has been senior physician at Mendota State Hospital, Mendota, Wisconsin.

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The Ohio State Medical Journal

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JONATHAN FORMAN, M.D., *Editor*

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Recent Trends in the Treatment of Rheumatoid Arthritis

RICHARD H. FREYBERG, M.D.

The Author

● Dr. Freyberg, Ann Arbor, Michigan, is a graduate of the University of Michigan Medical School, 1930; Member American Rheumatism Association; American Society for Clinical Investigation; research director, Rackham Arthritis Research Unit, University Hospital.

IN THE treatment of no disease has there been so much exploitation of remedies as in the case of chronic arthritis. This is quite natural: a disease so poorly understood especially in regard to etiology and pathogenesis, and for which existing therapy is not entirely satisfactory is an ideal situation for the trial of new treatments as they become available. This is commendable; the lamentable fact however, is that frequently little—yes, even no careful study is pursued to prove the value of a new form of treatment before it is enthusiastically supported, even widely advertised as being of great value or a new "cure." I am therefore happy to have this opportunity to discuss with you some of the newer adjuncts of therapy and in a critical and unprejudiced manner indicate the current trends in the treatment of rheumatoid arthritis.

It is important to recall that rheumatoid arthritis, the most common form of chronic arthritis, is characterized, pathologically by a proliferative inflammation primarily of synovial tissue which causes destructive changes of articular cartilage and subchondral bone so that crippling often results. This disease most commonly attacks persons in early life and clinical features are the evidences of chronic inflammation of the capsules of many joints and the manifestations of constitutional illness, frequently mild fever, leukocytosis, anemia, increased speed of erythrocyte sedimentation, anorexia, weight loss, skin and muscle atrophy, weakness and ease of fatigue. The disease usually is slowly progressive with periods of remission and relapse.

The treatment of this disease presents many problems. The most important obstacle is the fact that the etiology of rheumatoid arthritis is unknown. The physician is therefore confronted with the problems of treating a patient with a chronic inflammatory disease of unknown etiology and pathogenesis. Different theories of origin of this disease account for great differences of opinion and practice in attempts to arrest the disease and often physicians are so enthusiastic for some special therapeutic agent that they neglect the general health, to make him comfortable and to prevent dysfunction and deformities of joints. Regardless of any special measures that may be instituted in an effort to check the disease, to obtain best results it is imperative that a well rounded program incorporating certain fundamental treatment be instituted. We would do well therefore at this point to briefly consider these general fundamentals.

First of all, the patient with rheumatoid arthritis needs a great deal of rest—general physical and mental rest and rest for the involved joints. The more active and extensive the disease the greater the amount of rest needed; in severe cases 24 hours a day in bed. Oftentimes that rest

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Read before the First General Session, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio. April 28, 29 and 30, 1942.

is required for many months—advice so often patients refuse to follow.

Physical therapy is of proven value to most patients. This should be individualized for each patient, but the application of heat and hydrotherapy constitute the fundamentals. So called "fancy" measures of physiotherapy have little or no value in excess of the simple inexpensive forms. Most important is to have the treatment instituted daily or twice daily, which so often means effective therapy which can be carried out by the patient in his home. Heat from "bakers," infra-red lamps, warm pads or compresses, soaks and contrast baths, paraffin baths, full body baths are all useful. Diathermy is considered by most students of arthritis to possess no value more than providing local heat and hyperemia. Iontophoresis, i.e., the introduction through the skin about affected joints of vasodilating drugs by means of galvanic current has recently become popular. After a critical study of this form of therapy for rheumatoid arthritis we concluded[1] that it serves as another reliable means of physical therapy but offers no important advantages over other simpler methods, and that the disadvantages attending it in comparison with the few real advantages, preclude its widespread use.

Even though rest is emphasized, daily systematic exercises to put the affected joints through as full a range of motion as possible are important to inhibit the growth of proliferative inflammatory tissue (pannus) and to prevent stiffness and muscle atropy. These exercises should not be strenuous, and during more active stages of the disease should be non-weight bearing exercises.

Splints, moulds, removable casts, and other means of preventing deformities are extremely important and unless one is thoroughly familiar with methods, the assistance of an orthopedist is advised.

I know of no "arthritic diet" that has any proven merit. A general diet adequate in all essential factors, adjusted in calorific value to meet the requirements of the individual (high caloric diets for the undernourished, reduction diet for the obese) with moderate supplements of vitamins is desirable.

USE OF ANALGESICS

Maximum comfort should be obtained with wise use of analgesics. Acetyl-salicylic acid and its derivatives and salicylates are usually more effective than others. Usually 0.64 gram taken on awakening and at three or four hour intervals during the day and as needed during the night afford a high degree of comfort. Opiates should be avoided except in rare instances.

Anemia should be treated with iron and ample protein intake; oftentimes however cure of the anemia is not possible. Transfusions of whole blood weekly for three or four weeks sometimes are of value to patients chronically ill, debilitated and with significant anemia. They have been recommended by some physicians as an almost routine measure, even for patients without important anemia, but our experience has failed to support this practice, although occasionally in the more sick, debilitated and difficult chronic arthritic transfusion of blood may serve to initiate improvement which can then be kept progressing by other treatment. The expense of transfusions does not justify their frequent use in many patients.

CORRECTION OF DEFORMITIES

The correction of deformities and reconstructive operations in the patient whose inflammation has largely or completely subsided, are important parts of the program for rehabilitating arthritic cripples and should be wisely planned employing the help of capable and interested orthopedists.

All the foregoing is the **general** program, one half of the consideration of "complete treatment." What of the other half, "special measures" aimed especially to arrest the disease? In this half are found the chief bones of contention and the greatest differences of opinion. Let us remember that the etiology of the disease is **unknown.** However, most students believe it is in some way resultant from infection. The **theory** of "focal infection" has so long been entrenched in the minds of most physicians as the chief causative factor that often the first or only thought of the managing doctor has been "remove the focus of infection and the arthritis will be cured." But, alas, the theory has not been upheld in practice, and the trend now increasing each day is **away** from the standard "removal of focal infection to effect cure." Even though foci of infection may initiate changes which result in rheumatoid arthritis the removal of the infection after the disease has become established has generally failed to cure the arthritis. If you could see the many unhappy chronic arthritics I see, who have had all their teeth removed, the tonsils out, the sinuses punctured, the gall bladder, appendix and pelvic organs removed, and whose arthritis romps merrily on, I am convinced you would be as conservative as I am in regard to removal of focal infection. I believe that definite focal infection in the rheumatoid arthritic should be managed as it would be in a non-arthritic, considering the importance of the infection to local and adjacent regions, and in regard to the patient's general health, and **not** as a measure of "curing" the arthritis. The removal of teeth, tonsils and other non-vital parts on suspicion or just because they are present, with the hopes that the arthritis will thereby be cured should in my opinion not be done.

Because certain indirect evidence suggests that streptococcal infection is the cause of rheumatoid arthritis, streptococcal vaccines have been recommended as treatment. However one cannot be sure what organisms to use in preparing the vaccines—as a result antogenous, stock strains, single and mixed preparations have all been employed. Quite obviously the theory and scientific basis for vaccine therapy is not definitely sound, vaccines for treatment, especially of streptococcal infections have been in general unsuccessful and use of vaccines has failed in many investigators' hands so that the trend now is certainly away from their use even by some formerly quite enthusiastic supporters. Psychogenic basis for improvement when vaccines were used was found by Sidel and Abrams[2] to be the only value obtained. I have rarely used vaccines during the past three years.

ROENTGEN RAY AND DRUG THERAPY

Sulfanilamide and related drugs prepared to date have been quite devoid of value in the treatment of this disease.

Most investigators agree that fever therapy and foreign protein shock stated by some to "stimulate immune response" affect improvement which is only temporary and considering the unpleasantness of such treatment it is employed usually only in the discouraged chronic arthritic who has faileed to respond to other measures of treatment.

Reports have suggested considerable value in treatment of various rheumatic diseases with roentgen rays. This form of therapy has been studied extensively in the Rackham Arthritis Research Unit, and it has been found[3] that treatment of rheumatoid arthritis of extremity joints by roentgen irradiation gives unpredictable and quite unreliable results. In 41 per cent of cases there was no benefit. In only 15 per cent was there significant symptomatic improvement. Significant objective improvement occurred in only 14 per cent. Decrease in pain was the chief symptomatic improvement, and this was often, but not always, psychogenic. When lead screens were interposed between the source of the rays and the target unbeknownst to the patient (to control the psychic factor) oftentimes as much or more improvement was reported as when the part was really irradiated. Thus in this form of arthritis roentgen therapy by the technique employed gave results less satisfactory than reported by others and in general so discouraging that we have abandoned this treatment except in more obstinate cases or when a psychic effect is desired.

For rheumatoid arthritis of the spine (spondylitis rhizomelique; Marie-Strumpell arthritis) results were quite different. Of 52 patients in all stages of the disease, 72 per cent had subjective improvement of moderate grade or better, and in 50 per cent there was significant objective improvement. Results were excellent in early stages of the disease; 69 per cent of this group had significant sustained objective improvement, sometimes complete disappearance of all clinical evidence of the disease. In later stages after calcification of spinal ligaments occurred, a high percentage had significant relief of pain, obviously less objective improvement could be expected. We now consider roentgen therapy to be the best method of controlling symptoms of spondylitis rhizomelique; whether it is of benefit in arresting the disease we do not yet know. Early diagnosis is imperative for best results of treatment. The back is divided into areas and treated according to technique we have described elsewhere[4]. Care must be exercised in treating over the female pelvis to avoid sterilization, and white blood cell counts are important to prevent serious leukopenia from excessive exposure of bone marrow and lymph tissue.

Because many physicians believe nutritional defects, metabolic disorders or endocrinopathies are fundamental etiologic factors in rheumatoid arthritis, different vitamins, endocrine preparations and elements have been proposed as remedies. All the vitamins have been recommended, but especially vitamins B, C, and D. Because thiamin chloride is dramatically effective in relieving painful neuritis when sufficient deficiency of vitamin B exists, many have hoped it would be of similar value in relieving pain of rheumatoid arthritis. Our experience and that of most careful investigators shows that thiamin chloride in even large doses given orally and parenterally is of little or no value in arthritis. Vitamin C has been shown to be of importance to the health of connective tissue, and C deficiency in animals allows or accounts for the occurence of disease of articular tissue.[5] Many arthritics have, as do other persons chronically ill with other diseases, decreased plasma ascorbic acid values. However, along with others[6] we have observed no beneficial effect on the arthritis when supplements of ascorbic acid have been given in amounts sufficient to maintain patients abundantly nourished in respect to this vitamin for long periods of time.

One of the most widely advertised drugs is vitamin D used in massive doses. I have been unable to find rationale for such treatment. We have been studying this treatment for about three years, and although not finished, our results have been discouraging. Some patients report symptomatic benefit, especially of general nature, less often relief of joint symptoms. A few have significant objective improvement. Our experience has shown this treatment to possess far less merit than many claim and as do others [6a, 7] we consider that the frequent failures, the dangers of toxicity, and the considerable expense relegate this form of treatment to a position well down the list of choices. Certainly Vitamin D should not be relied upon as **the one** measure of reliable treatment excluding other therapeutic activities.

Endocrine preparations are less popular now than a decade ago. I know of no direct benefit to the arthritis by administration of thyroid or pituitary preparations. Should hypothyroidism exist with rheumatoid arthritis, it should be corrected of course. Use of estrogenic hormone in adequate amounts during menopause often has a beneficial effect in relieving rheumatic menopause symptoms and sometimes appears to benefit joint inflammation.

The injection of colloidal sulfur until recently at least has been very popular. Why sulfur in colloidal suspension has been used to treat arthritis and why it has been administered parenterally I do not know. Rationale for sulfur therapy is based primarily on two **claims**: (1) it is **said** that a deficiency of sulfur exists in chronic arthritis and (2) it is implied that due to insufficient supply or a metabolic fault detoxification processes requiring sulfur conjugation are inadequate. We recently critically investigated these claims by comparing sulfur metabolism in rheumatoid arthritics and healthy control subjects, studied under identical conditions[8]. The results are very convincing. It was found that the average sulfur excretion of arthritics and controls is almost identical, and that all partitions of urinary sulfur are similar except possibly the conjugated sulfate fraction. It is this fraction which is important as an indication of detoxification by sulfur conjugation. The conjugated sulfate sulfur excretion was 9 per cent of the total sulfur eliminated in the arthritics and 5 per cent of the total in control subjects. We are unable to say whether this difference is significant or not but if so, it certainly does not indicate any deficiency of sulfur available for detoxification and no impairment of this mechanism. From this data alone it is obvious that there is no deficiency of sulfur and no important disturbance of sulfur metabolism in arthritics. Even so we studied the effect of injection of colloidal sulfur. Following intra-muscular injection of colloidal sulfur, without exception, each control subject and each arthritic excreted **more** sulfur in excess of the average during control periods, than could be accounted for by that which was injected. There was no important change in conjugated sulfur elimination. Results after intravenous injection were similar. Thus the effect of injected colloidal sulfur was essentially the same in arthritics and controls and since sulfur excretion increased by amounts greater than the amount injected certainly the administration of colloidal sulfur would not benefit or prevent a sulfur deficiency **if one existed**. Since no significant increase in the excretion of conjugated sulfur occurred, detoxification cannot be an important benefit of injection of colloidal sulfur. After many other studies of this problem we concluded: (1) "No evidence of sulfur deficiency or abnormality of sulfur metabolism was found to exist in patients with arthritis;" and (2) "This study reveals no **biochemical** or **metabolic** indication of need for, or benefit from, sulfur medication in the treatment of arthritis."

GOLD SALT THERAPY

A form of treatment aimed to check rheumatoid arthritis which has been of considerable interest recently is gold salt therapy. About 14 years ago, Forestier started to treat arthritics with injection of gold salts. He reported good therapeutic results. Subsequently many other Europeans reported favorably concerning gold therapy so that at present it is a very popular form of therapy in most of Europe. Physicians in this country were slow to study and use gold, largely because of the frequent toxic reactions that were encountered from the start. During the last few years however it has been studied rather intensively by Americans, most of whom are quite enthusiastic concerning its potential value.

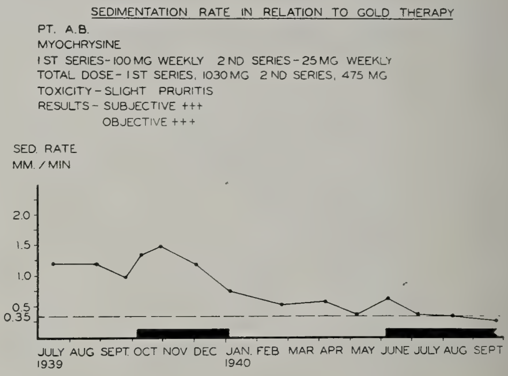
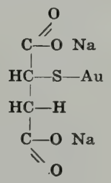
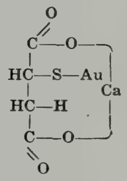
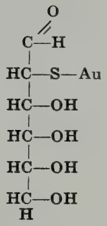


Fig. 1 The changes in erythrocyte sedimentation rate in relation to myochrysine treatment in a rheumatoid arthritic. The upper limit of normal sedimentation rate is shown by the broken line. Treatment was given during the periods blocked out at the base of the graph.

That gold therapy is of value in some patients cannot be doubted when one sees results such as shown in Fig. 1. During treatment with myochrysine the sedimentation rate became normal, and there was striking clinical improvement which continued until there was complete arrestment of the disease. It should be emphasized that this is one of our best results, but it shows what can happen with such treatment and anyone with much experience treating arthritis cannot help but be impressed with such results. In many patients the disease does not become completely arrested but varying degrees of improvement occur; in about 30 per cent of our cases no significant improvement resulted. Other investigators have reported better results than ours with as many as 22 per cent of cases completely arrested and 51 per cent showing striking improvement[9]. It is not only the number of patients improved, but the quality of the improvement which impresses most everyone working in this field.

GOLD PREPARATIONS STUDIED

TABLE I.

Chemical Name	Trade Name	Formula	Solubility in Water	Physical State	Gold Content per cent
Gold Sulfide	Aurol Sulfide	Au_2S_3	—	Colloidal Suspension	87
Gold sodium thiosulfate		$Na_3Au(S_2O_3)_2$	+	Aqueous solution	37
Gold sodium thiomalate	Myochrysine		+	Aqueous solution	50
Gold calcium thiomalate	Calcium Aurothiomalate		—	Oil suspension	50
Gold thioglucose	Solganal—B Oleosum		+	Oil suspension	50

On the other hand, toxicity of gold salts is frequently encountered and is sometimes serious. Deaths have been reported due to gold. The reactions are of different kinds, most commonly a form of dermatitis, sometimes general exfoliative dermatitis, less commonly, stomatitis, ulcerative enteritis, nephritis, agranulocytosis, aplastic and hemalytic anemia, purpura and hepatitis. When these latter mentioned reactions occur, fatality may result. The incidence of all forms of toxicity, mild and severe, is high, 35-50 per cent; the toxicity of gold is not inconsiderable.

Being convinced of the theraupeutic possibilities and the severe toxicity which may result we began an intensive study of the metabolism, toxicity and manner of action of gold preparations about which so little was known, with the hope that this treatment might be made more universally valuable and less dangerous.

Many preparations of gold have been used (Table 1). Some are inorganic, some organic salts; some are water soluble and some insoluble; some prepared for injection in an aqueous solution, others as colloids. Gold thioglucose is water soluble but is marketed as an oily suspension. The gold content of different salts varies from 37-89 per cent of the molecule. This is particularly important since we have conclusively shown that the effectiveness of all gold preparations is dependent upon the gold they contain and not upon sulfur or other constituents[10].

The conventional method of administration of these drugs is to inject a salt such as myochrysine weekly beginning with 10 or 15 mg. and increasing the amount gradually to 100 mg. and to give this dose weekly until 1 to 1.5 grams of the drug are given. Treatment is then discontinued for 6 to 12 weeks and then a similar course may be repeated once, or more.

Using a highly accurate and sensitive chemical method[11] we have determined the gold content of blood and the excretion of gold during and after treatment with different gold salts. Some of the results have practical importance and will be included in this discussion. With the use of the soluble crystalline salt, gold sodium thiomalate (myochrysine), there is a step-like increase in plasma gold concentration, with increasing amounts of gold; after the weekly dose becomes constant, the plasma gold no longer increases but remains quite constant usually between 0.4 mgm. and 0.8 mgm. per cent. Excretion of gold in the feces is irregular but larger amounts are found with larger doses. Gold is eliminated chiefly in urine. The rapid absorption of myochrysine is shown by the larger elimination of gold on days of injection. One of the most important observations is the **significant retention** of gold. Between injections of 40 or 50 mg. of **gold** (100 mg. myochrysine) the average daily gold excretion is only about 1 mgm., a total of 7 to 10 mgm. weekly, about 15-25 per cent of that given. The excretion of gold does not significantly increase with weekly injections of the same amount of gold, hence **during** the period of treatment, 75-85 per cent of the injected gold remains in the body. This increasing retention of gold is important clinically as we shall see.

When the soluble inorganic salt, gold sodium thiosulfate is given intramuscularly the metabolic findings are precisely the same. The thiosulfate can also be given intravenously; with constant doses there is no essential metabolic difference whether the drug is given intravenously or intramuscularly, another indication that soluble crystalline gold salts are quickly absorbed when given intramuscularly.

After a course of injections has been completed gold continues to circulate and is present in urine for many weeks or months after treatment is stopped. The length of time after treatment that gold is found in blood and urine varies directly with the size of the weekly dose. With 50 mg. weekly doses of **gold** (100 mg. myochrysine) the urine would often not become negative for 8 to 10 months. With 25 mg. of **gold** (50 mg. of myochrysine) weekly the post-treatment excretion is definitely shorter — three to five months. After still smaller doses, gold is excreted for an even shorter time.

Although it is freely soluble in water, gold thioglucose is prepared in oil (Solganol - B Oleosum). When intramuscular injections of this preparation are given in doses providing amounts of **gold** similar to that of the other drugs gold is rather readily absorbed giving plasma values about 66 per cent as high as obtained with myochrysine. The fecal and urinary excretion are in similar proportion. The urinary excretion is significantly higher on days of injection, indicating that the oil does not **greatly** impair absorption. When constant doses of gold are given, there is a gradual increase in urinary excretion of gold, indicating a gradual increase in absorption not seen with the solutions. As with the other drugs, there is great retention of gold and the plasma and urine are found to contain gold long after treatment.

The last type of salt I shall discuss is the insoluble colloidal gold sulfide. Results were similar whether this drug was injected intramuscularly or intravenously. Even when given intravenously in large amounts, little or no gold was found in plasma, small amounts in feces and none or only traces in urine. These results are explained by animal studies which demonstrated that the colloid preparations of gold are quickly phagocytized as shown in the rat liver. (Fig. 2).

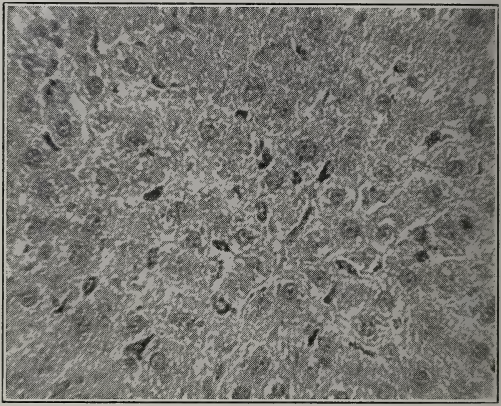


Fig. 2. High magnification of a section of liver of a rat injected intramuscularly with colloidal golf sulfide. Note the heavy black pigmentation of all of the Küpfer cells due to the phagocytized gold, and the cloudy swelling of parenchymatous cells.

Let us now turn to clinical considerations in the light of these metabolic findings. First, the choice of the drug If gold is injected, to be valuable it must be in a form that it can be absorbed and remain in circulation until it gets to the site of its action. Colloidal preparations do not accomplish this. Colloidal gold sulfide causes far less reactions than other gold salts; the colloidal gold particles are quickly phagocytized, hence become ineffective. But of course this also prevents therapeutic effects. We have found this drug to be of little or no value.

The soluble crystalline salts (myochrysine and gold sodium thiosulfate) are readily absorbed. Although gold sodium thiosulfate can be given intravenously, our studies show no advantage in so doing and because of distinct disadvantages of this route of administration, if this salt is used, we advise intramuscular injection.

Dosage is important. Since the **gold** of the salt is the active principle, different preparations must be considered in equivalent **gold** doses. Toxicity usually does not occur until the patient has had several hundred milligrams of the drug, sometimes **after** a course of therapy. Recall that the retention of gold is great, that it is only slowly eliminated, and that the amount of gold retained and the length of time it circulates **after** treatment increases with larger weekly doses. Therefore, if a toxic reaction occurs midway or later in treatment one is confronted with a large amount of the offending drug. We do not at present know how to inhibit these effects and we are therefore at the mercy of the drug so long as it circulates. Consequently it is desirable to treat with as small amounts of gold as can be therapeutically effective. We have been pleased to find that 50 mgm. of myochrysine (25 mg. of gold) weekly gave results equally as good as we obtained with 100 mgm. Twenty-five milligram doses, sometimes good, in general gave results inferior to 50 mgm. weekly. **Very important** is the fact that toxic reactions were fewer with smaller doses. Table 2 shows the incidence of toxicity with different doses reducing from 41 to 18 per cent (including all grades of toxicity). But **more** important—the **severity** of the reactions was reduced. There appears to be, therefore, a quantitative relationship between **severity** and **duration** of toxicity and the amount of gold in the body. With smaller doses we have not seen nephritis, prolonged exfoliative dermatitis or other severe reactions we saw with larger doses.

TABLE II

Showing the incidence of toxic reactions in relation to the size of the weekly dose of soluble gold salts.

Weekly dose of drug	Number of Patients Treated	Toxic Reactions	
mgm.		number	per cent
100	46	19	41
50	63	19	30
25	17	3	18

If myochrysine is used we suggest weekly injections not to exceed 50 mg. of the drug (25 mg. of gold) continued if tolerated until 700 mg. or a gram of the drug is used. With gold sodium thiosulfate so similar in its metabolic and clinical effects to myochrysine, dosage we think should be similar, i. e., of the preparation which is 37 per cent gold, amounts of the salt should not exceed 65 mg. weekly.

Since the suspension of gold thioglucose in oil (Solganol-B Oleosum) reduces the speed of its absorption somewhat, and generally gives blood and urine gold values about two-thirds those obtained with the aqueous preparations to be comparable therapeutically we now believe doses of this drug should be about 150 per cent those of myochrysine.

At present I know of no therapeutically effective drug devoid of toxic reactions, nor do I know of means of altering the metabolism of the drug to lessen toxic reactions after they occur. Therefore if gold salts are to be employed the physician and the patient should be thoroughly acquainted with possibilities of toxicity. The patient should be seen by the physician before each injection and questioned concerning symptoms of toxicity, (pruritis, sore mouth, peculiar taste, anorexia, rash); the urine should be examined weekly for albumin and sediment changes and the blood examined every two weeks. Treatment should be stopped if any evidence of toxicity appears; whether it should be resumed if toxicity soon disappears one can only learn from considerable experience or by trial.

It is not known where, how, or why gold therapy works beneficially in some case of arthritis. Quite clearly it accomplishes only one thing—namely, it lessens or arrests inflammation. It does not repair damaged cartilage or bone or construct new joints. Therefore it cannot be expected to rehabilitate the "burned-out" rheumatoid arthritic cripple. The patient with the active inflammatory stage of rheumatoid arthritis is the candidate for gold salt therapy. It should not be used alone, but should be a part of a complete treatment. We must learn how to use better the gold preparations we have, or obtain improved drugs to make this therapy more uniformly effective and less dangerous.

SUMMARY

The patient with rheumatoid arthritis should be considered to have a chronic inflammatory disease of unknown etiology for which there is no "routine" treatment. Treatment must be individualized for each patient and should be based upon two main objectives: (1) To establish optimal general health and comfort and to prevent as much as possible deformities and crippling, and (2) to arrest the inflammatory process if possible. Among the general measures, rest, physical therapy, exercises of affected joints, relief of discomfort, adequate nutritious diet, orthopedic measures and correction of associated disorders such as anemia, are of definite value. Many special measures of treatment have little or no value, and should be appraised properly before used. No single remedy should be employed alone, but should be a part of a broad program of treatment. Of all treatment aimed to check the disease, gold therapy shows greatest promise. It should still be considered imperfect. If used, great care must be exercised and even then trouble may be encountered. Smaller doses than commonly employed are advised. We must learn to use better the gold salts we have, or we must obtain improved preparations to make this therapy more uniformly effective and less dangerous. Although interested in gold therapy for what it is, I am more interested in it for what it may become.

Properly and patiently treated, the person with rheumatoid arthritis has a much better prognosis than most patients and physicians have thought.

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Decalcification

Fractures of vertebrae which are decalcified by some general or local pathologic process occur with minimal trauma. A misstep, a hard cough, or a relatively slight jolt frequently results in definite collapse of the body of the vertebra. In these cases treatment of the fracture is secondary to that of the basic pathologic process. Local or metastatic neoplasms respond fairly well to roentgenotherapy. Halisteresis of long standing metabolic disorders responds to an increased calcium intake supplemented by moderate use of vitamin D and the liberal use of hydrochloric acid.—Fremont A. Chandler, M.D., Chicago; Wisc. Med. Jour., Vol. 41, No. 8, August, 1942.

Functional Chest Pain

A review of 227 records of patients complaining of chest distress. These patients had been advised or thought they had heart disease.

Organic disease was present in forty-three cases. There were nineteen cases judged to have referred pain, either from the gastro-intestinal tract, the spine, or in association with prolonged attacks of paroxysmal auricular tachycardia.

One hundred and sixty-five (72 per cent) were experiencing distress of functional origin. Ninety-three patients (40.9 per cent) were judged to be angina pectoris. Seventy-two patients (31 per cent) were judged to be of non-cardiac origin.

This latter group were classified as definite cardiac neuroses (fourteen patients or 19 per cent); a psychoneurotic group (thirteen patients or 18 per cent), patients who were neurotic, but were definitely not hypochondriacs; and a third miscellaneous group called neuromuscular. Neurotic tendencies, globus hystericus, absent pharyngeal reflex, functional dyspnea, and a reduced threshold for pain were often demonstrated in the first two groups. The neuromuscular group, consisting of forty-five patients or 62 per cent of the seventy-two cases, had very few neurotic tendencies; and the distress varied widely in location and duration as compared with the first two groups wherein the pain was decidedly left-sided, localized in the inframammary region, and superficial and deep tenderness were frequently elicted.

In recent years invalidism resulting from misinterpretation of chest pain, from careless remarks made by the initial professional advisor, from types of medication prescribed, or due to some tragic occurrence to some close friend or relative, has occurred with increasing frequency.

It was thought that a review of this type would be helpful in preventing unnecessary mental and physical invalidism from occurring. The interpretation of chest pain is based more on an acquaintance with the patient rather than an evaluation of objective data. The diagnosis, therefore, of angina pectoris can and should be made in the presence of normal findings, but often is unwarranted even in the presence of some abnormal objective findings.—Ben E. Goodrich, M.D., and John W. Keyes, M.D., Detroit; Jour. Mich. S.M.S. Vol. 41, No. 7, July, 1942.

Diagnosis of Brain Tumors

The older medical practitioners were taught that headache, vomiting, and disturbed vision were the cardinal symptoms of brain tumors. More recent advances in neurophysiology have demonstrated that these symptoms are indicative of increased intracranial tension which may be caused by a variety of pathologic conditions including tumors.—Joseph Pessin, M.D., Madison; Wisc. Med. Jour., Vol. 41, No. 8, August, 1942.

Notes on the Etiology and Therapy of Polyneuritis

CHARLES D. ARING, M.D.

NEURITIS may be considered as a syndrome, the most striking symptoms of which are those associated with abnormality in the function of the neurone. Clinically polyneuritis or multiple peripheral neuritis presents itself as a bilaterally symmetrical affection of the peripheral nerve trunks to the limbs involving both motor and sensory fibers. The lower limbs usually are more severely involved than the upper; in fact, the latter usually escape. Signs of truncal involvement are not evident, and are of little clinical importance except in the overwhelming type of the disease. In some instances cranial nerves, particularly the seventh, may be involved. The occasional presence of symptoms of mental disorder indicate that the central nervous system is not immune. Accompanying the signs which indicate disease of the nervous system there may be muscle and visceral involvement. Since signs of the latter are obscured and relegated to the background by nervous signs, usually they are overlooked or ignored.

THE REQUIREMENTS FOR DIAGNOSIS

It is no feat to diagnose polyneuritis in the patient who is suddenly and conspicuously paralyzed in all extremities, who has lost sensation in the distal portions of the limbs and in whom tendon reflexes cannot be obtained. A more urgent question is, what are the minimum requirements for the diagnosis of polyneuritis? This question cannot be answered with complete assurance. With the aid of histological studies we may say that no single clinical sign can be correlated with the number of myelin sheaths remaining in an affected nerve.[1] Mild clinical signs, such as spontaneous pain and muscle tenderness, may occur in the face of what is considered to be a normal myelin sheath content of the nerve. The most reliable single sign of polyneuritis in our experience is deviation of the tendon reflexes from the normal. These reflexes may be heightened, or reduced, or they may be absent.

ETIOLOGY

Since the mechanism of the development of polyneuritis is not known, certain props are utilized in attempts to clarify the understanding of the disease. One method is to subdivide the disease into acute, subacute, or chronic forms, another to classify neuritis according to the disease, trauma, chemical, or toxin with which its onset is associated.

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The uniformity of signs, symptoms, and behavior seen throughout the range of the etiological varieties of polyneuritis is striking—a uniformity that must reflect the nature of the chemical changes underlying the malady. Variations occur from case to case, but in all there are the unmistakable signs of impaired function of the peripheral nerve. The differences in the syndrome of polyneuritis are best exemplified by a brief exhibition of the three main clinical varieties. Infectious polyneuritis (or infective neuronitis) serves well as an example of the acute or fulminating variety, a subacute variety might be pellagrous neuritis, and a chronic variety, the best known of all, namely alcoholic neuritis.

THE ACUTE FORM—INFECTIOUS POLYNEURITIS

This form of polyneuritis is not as uncommon or as inocuous as they would have us believe. In patients at the Cincinnati General Hospital, the mortality has been 18.8 per cent.[7] In a series reported from the Boston City Hospital,[3] the mortality was 42 per cent, and there appeared to be a striking increase in fatalities in recent years as compared with the past.

It has been thought that the disease is one of the nervous system alone and that it is the result of some virus infection, but both of these ideas appear to be incorrect.[8]

Infectious polyneuritis has been recorded as following in the wake of many infections. The usual story is that of an upper respiratory infection, followed in days or weeks by a rapid development of peripheral neuritis with profound weakness of abdominal and thoracic muscles.

Read before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

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Bilateral facial weakness is usual and there may be complete facial diplegia. The muscles are tender, the tendon jerks abolished, but sensory loss is commonly mild though conforming in character and topography to that seen in other varieties of neuritis. Diminution in the appreciation of vibration may be the only objective sensory sign. There is usually tachycardia, and little fever. Death may ensue from respiratory muscle paralysis, or from sudden fatal syncope. Delirium may develop. An important diagnostic feature is the marked increase in the protein of the cerebrospinal fluid without any change in the number of cells. In cases which survive, the paralysis tends to diminish after the first week or two, and the recovery proceeds somewhat more rapidly than in the less acute varieties. In some instances lack of vigor remains for years.[7] Intensive vitamin B_1 therapy does not influence these cases. The illness usually appears suddenly in previously healthy and robust subjects, whose dietary habits and general conditions of life offer no points of criticism. It is at present impossible to link these cases with defective vitamin ingestion or absorption.

When one turns to the pathology of infectious polyneuritis some hints are found as to its etiology. In the peripheral nerves and roots are found degeneration of the myelin sheaths and axis cylinders with or without inflammatory reaction. Some of the nerve cells of the sympathetic ganglia (abdominal) are vacuolated and swollen and there is some cellular infiltration in the sensory ganglia. Some of the nerve cells of the spinal cord and brain stem are swollen and contain vacuoles, and some cells exhibit mild degrees of chromatolysis and eccentricity of the nuclei. Usually there is considerable edema of the nervous tissues. Most of the central changes appear to represent chiefly a reaction to injury of the peripheral nervous system, or to be reversible. The white matter of the cord may be involved severely in fulminating cases of infectious polyneuritis.

The viscera are also affected.[8] In the adrenals are found foci of degeneration and infiltration with mononuclear cells. In the liver the lesions consist of focal cellular infiltration in the capsules and portal spaces, focal necrosis of liver cells with cellular infiltration, and focal fatty degeneration. There is focal intertubular infiltration of mononuclear cells in the kidney. The heart shows interstitial infiltration with mononuclear and polymorphonuclear cells, and sometimes necrosis of isolated muscle fibers and focal phlebitis.

Some etiological hints are contained in the pathology of infectious polyneuritis. In the first place the changes in the viscera resemble those seen in diseases produced by specific micro-organisms in which elaborated toxins are usually held responsible. These visceral changes strikingly resemble those produced in diphtheria, scarlet fever, and typhoid fever. Here is the first lead to the possibility that we are not dealing with effects of a virus. The visceral changes associated with infectious polyneuritis taken together with the nervous lesions are unlike those produced by pantropic viruses. The implication can be carried further. The virus diseases known to attack man and animals all can be demonstrated by careful animal innoculation studies. It has been shown[8] that the tissues from the nervous system and viscera of persons dying from infectious polyneuritis, and innoculated into mice, guinea pigs, rabbits, and rhesus monkeys do not reproduce the disease. Presumably therefore we are not dealing with any of the known viruses. These data best fit the hypothesis that infectious polyneurits is caused by a toxin or toxins with affinities for the peripheral nerves and viscera, and elaborated by micro-organisms responsible for the infection of the respiratory tract which usually precedes the onset of nervous symptoms.

THE SUBACUTE FORM—PELLAGROUS NEURITIS

To thoroughly understand pellagra, it is advantageous to have worked in regions where the disease is endemic. Pellagra is undoubtedly a mixed deficiency disease; in other words, it is a disease due to lack of several essential nutrients in the diet. Pellagra is endemic in the southern United States, and probably every significant advance in the control of the disease has come from work done in these regions. Those who have dealt with numerous pellagrins (that is, patients whose disease is not associated with the ingestion of alcohol) know that the incidence of polyneuritis is high in these individuals.[4] Also they know that the prostrating form of polyneuritis is extremely uncommon in pellagra, and that the great majority of these people with neuritis may be ambulatory, or semi-invalided. Nevertheless, the symptoms and signs of pellagrous polyneuritis are of the same kind, though of different degree than those found in patients suffering from other forms of neuritis. However, the behavior of the progress of this type of polyneuritis is very different. Its course appears to be entirely dependent on the diet of the individual. The severity of the polyneuritis waxes and wanes for years; it never causes prostration nor does it ever allow the person to feel completely fit.

This type of neuritis responds readily to vitamin therapy; small doses of vitamin B taken orally usually are efficacious.

It can be shown readily that the pellagrin may have morphological changes in his peripheral nerves. Thus when myalin sheath counts of the nerves of living pellagrins were studied, eight of ten patients were found to have nerves deficient in myelin sheaths.

THE CHRONIC FORM—ALCOHOLIC NEURITIS

The neuritis which may be associated with the ingestion of alcohol is so well known as to need no description. The neuritis usually develops gradually, and the patient has been aware of numbness in feet and toes, nocturnal cramps in his legs, and some weakness and dyspnea on exertion, months before he seeks medical advice. Alcohol contains no vitamin, and the patient may fail because of gastric disorder to absorb such vitamins as he manages to ingest with his curtailed and restricted diet. It is reasonable to suppose that the process may be akin to beri-beri, as the victim is taking a diet high in calories but deficient in vitamin B_1. The polyneuritis of cachectic disease may be produced similarly. Yet the use of vitamin therapy is of limited value in these paralyzing types of polyneuritis. Beyond the relief of pain little is to be expected from it.

I think that we are becoming increasingly respectful of the ability of alcohol to produce polyneuritis.[9] In the few instances in which persons with neuritis have been imbibing alcoholic liquors heavily and the nerves have been examined histologically (by the biopsy method), the damage to the nerves was rather more severe than in comparable material from persons who do not drink.[1] In one person addicted to alcohol who had never had signs or symptoms of polyneuritis, the myelin sheath content of a nerve taken by biopsy was 25 per cent lower than that of other controls who did not drink.

In the Nutrition Clinic at the Hillman Hospital in Birmingham, Alabama, where many patients with deficiency of nutrition have been observed over the past four years, the paralyzing type of neuritis rarely is seen unassociated with alcoholism, or the neuritis may accompany some severe disease of other than nutritional origin. On the other hand, paralytic polyneuritis is not infrequently observed at the Cincinnati General Hospital where patients who may be suffering from nutritional deficiency usually have ingested alcohol in large quantities and over long periods.

DISCUSSION

What is the purpose of describing these variants of neuritis? Polyneuritis represents a rather uniform reaction of the nervous system to diverse and—at first sight—unrelated pathogenic agencies, and it would seem logical to classify neuritis accordingly. These agencies range from a simple agent such as arsenic to the exotoxins of diphtheria and other infections, and to such unrelated metabolic disturbances as diabetes and beri-beri. Do these diverse agents act directly upon the nervous system or do they react indirectly in virtue of some common disorder of the metabolism produced by all of them?

The study of beri-beri in man and animals has thrown some light upon this question. Clinically and pathologically the polyneuritis of beri-beri is typical, differing in no essential from other varieties. The nervous signs and symptoms are those of multiple symmetrical peripheral nervous lesions, the cardiac manifestations are also those which may be associated with polyneuritis. In the East Indies, beri-beri was long ago found to occur in natives who subsisted on a diet consisting predominantly or wholly of polished rice —that is, a diet of carbohydrate.

When fowls are fed on polished rice, a form of paralysis called avian polyneuritis or avian beri-beri results in three or four weeks. Fowls given nothing but water live longer than rice-fed birds and die without developing polyneuritis. It follows, therefore, that polyneuritis in fowls is not due to the simple deprivation of food. Two factors appear to be operating: the presence of carbohydrate in the diet of polished rice, and the absence of something else. The more carbohydrate the birds are given, the more rapidly they develop polyneuritis. In light of present knowledge, it is clear that deprivation of vitamin B_1 alone is not sufficient cause of beri-beri in fowls, nor is it, for that matter, in man since patients given a diet deficient in vitamin B_1 do not develop polyneuritis. The simple deprivation hypothesis has always been incongruous, for it ignored the essential identity, clinically and pathologically, or beri-beri with other varieties of polyneuritis. It has been determined[6] that vitamin B_1 acts as a coenzyme in carbohydrate metabolism. In the absence of the vitamin, cellular carbohydrate metabolism—so important to the nerve cell, breaks down at some intermediary stage, and presumably abnormal breakdown products may then accumulate in the cell.

Does a breakdown in some portion of the chemical chain responsible for the metabolism of nerve occur in all the varieties of polyneuritis? If so, does it depend on a specific vitamin deficiency in the cell? Does such a deficiency arise from inadequate ingestion or from impaired absorption of vitamins? No conclusive answers to these questions are yet possible, but they indicate the trend of thought at present. Whoever explains the chemistry underlying polyneuritis will have an explanation for the ease with which some species develop polyneuritis under experimental conditions, while others are resistant to it. He will have considered the prompt response of the neuritis of endemic pellagra to vitamin B_1, and of that neuritis frequently associated with pernicious anemia to liver extract. He will have noted the paucity of paralytic polyneuritis among endemic pellagrins, despite the frequency with which neuritis afflicts these people. He will have to consider why persons completely paralyzed with infectious polyneuritis may be walking within a few weeks, and also why the neuritis associated with the ingestion of alcohol and with diabetes are so refractory. More important he will have recognized the essential clinical uniformity of the various types of polyneuritis which had been thought to be etiological variants.

TREATMENT

The therapy of neuritis might be divided into five categories, namely, removal of the noxa, rest, local care of the involved limbs, relief of pain, and attempts at restitution.

If the immediate cause of the neuritis seems obvious, as it may in heavy metal poisoning, it should be remedied. The use of alcohol should be interdicted rigidly.

Patients should be at complete bed rest until the process has ceased to progress actively. An index of some reliability is the pulse rate; until it returns to normal patients should be recumbent. It has been thought that the sudden fatal syncope, sometimes seen in infectious polyneuritis, may occur if the patient is not kept supine and completely at rest. A respirator should be available for those types of neuritis which are prone to cause bulbar palsy (infectious polyneuritis).

The care of weakened and paralyzed limbs is at the moment in a state of flux, due to the introduction of some dynamic concepts by Kenny[2, 2a, 2b]. Care must be taken to prevent the development of contracture in the muscles, and on the other hand, of overstretching. A cradle will keep the weight of the bedclothes off of the lower limbs. It is likely that the use of splints in acute paralytic diseases will be discontinued shortly. It is certain that their use has encouraged a passive policy of therapy which has stymied the progress of physiotherapy. It is not unlikely that the use of splints in acute palsies is actually harmful. One may devise padded splints to be applied distally, which are best made with plaster. For the lower limbs, they should consist of a posterior, half-shell amply padded with cotton, in which the leg may rest occasionally. For the upper extremities, an inferior half shell which holds the hand in very mild extension at the wrist, holding the fingers straight or very slightly flexed has been used. In this type of splint the limb rests in a more or less neutral position. Splints need not interfere with the action of the elbow or the knee joint. Pillows may be placed beneath the knees for comfort. Splinting is usually as far as local care of the limb has been carried, and for this reason some of the potential efficiency of the limb is lost. Gentle passive movement of all the joints of a paralyzed limb is a requisite until muscles regain strength, and should be done as often as four or five times in twenty-four hours. If spints are used, they should be removed during joint exercise. These movements need not cause pain, if considerately performed, and they may be done by a member of the family under instruction, in lieu of a trained physiotherapist, an additional expense which is insurmountable usually. Active movement may be allowed as far as it is comfortable to the patient. The physician should not urge the patient to move his painful and weakened limbs beyond the amount that is a requisite for maximum comfort. In the case that active movement is possible in the joints of the hands and feet, splints obviously are superfluous.

If splints are not used and the lower extremities are completely paralyzed, a board may be inserted between the end of the mattress and the foot of the bed, or a small wooden box may be fixed firmly to the footboard of the bed. The feet should rest flatly and firmly against this support, which calls forth certain reflexes resident in the cord and brain stem and which are active in the intact organism.

Theoretically the hot fomentation method of Kenny[2, 2a, 2b], efficacious in the therapy of poliomyelitis particularly in the acute stage, should be of benefit in polyneuritis. A monograph on this method is to appear shortly from the National Foundation for Infantile Paralysis, and this therapy then should be tested widely and evaluated thoroughly in many neurological diseases. It interdicts the use of splints.

More vigorous physiotherapeutic manoeuvres are deferred until the pain and tenderness remits. Gentle massage of the muscles of the affected limbs then may be done once or twice daily. Active movements by the patient might now be encouraged rather than just allowed. Depending on the range of the active movement, the performance of passive movements and massage might be discontinued.

Properly performed physiotherapeutic methods contribute toward the relief of pain. Analgesics may be administered by two routes. Analgesic ointments are sometimes of value when pain is localized. Analgesics by mouth can be limited simply to acetylsalicylic acid, or a mixture of acetylsalicylic acid and codeine. In some instances, heat is analgesic, particularly in the neuritis associated with diabetes. Hot water baths or foments may be employed. The use of heat may result in the accentuation of abnormalities in the limbs, if the circulation in the extremities is impaired. Quinine has been used for the night cramps of the elderly[5], and may be of use in quieting the severe night pain of neuritis. Three to six grains of quinine sulphate morning and evening is advocated.

An ample nutritious diet should be allowed, which might be low in carbohydrate and high in other nutriments, particularly if the patient is in bed, expending little energy. The diet should be supplemented with brewer's yeast and crude liver extract by intramuscular injection, particularly early in the course of the disease, though these materials should not be regarded as specifics which will result in prompt care, except in the neuritis associated with pellagra and pernicious anemia.

In conclusion, it should be noted that only a small facet of polyneuritis has been considered, and that the fields have been cited in which we have worked and are particularly interested. For the practitioner of medicine, one would be inclined to emphasize that there is as yet no royal road to the cure of persons afflicted with polyneuritis. The essential of treatment in many cases consists of administrations to the comfort of the patient during the period that natural healing of the nerve is taking place. The patience of the physician in the therapy and relief of these conditions should be second only to that of the sufferer. It would seem that there is some common basic factor operating in the development of all of the myriad forms of polyneuritis. At present this road is blocked also, as this factor so far has eluded all of the workers in the field.

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Child Health

Let us be realists. If as a nation we have, unfortunately, found it necessary to call our youth as an army for national defense, the importance of physical fitness is certainly one of paramount national importance. Our child health methods and institutions have developed rapidly in the United States in the last twenty years but the results of the present selective service act show that we have much to do. I think the pattern of the program is sound and what is chiefly needed is the extension and the intensification of efforts.—Borden S. Veeder, M.D., St. Louis; Jour. Mich. S.M.S., Vol. 41, No. 8, August, 1942.

Trichinosis

Bachman in 1928 introduced the use of Trichinella antigen in experimental trichinosis, and Augustine and Theiler applied the procedures to man. Spink in 1937 reported 59 positive skin tests in 60 patients with trichinosis. The negative reaction was in a moribund patient whose muscles at autopsy were found infiltrated with Trichinella. In 1938 Bozicevich reported that of 44 patients hospitalized for trichnosis all reacted positively to both precipitin and skin tests. Twenty of 136 others, exposed to the same infection but not made sufficiently ill to require hospitalization, gave positive tests. The antigen is prepared from desiccated larvae obtained by digestion of infected meat. The powder is extracted and diluted to 1:10,000 with a saline solution for skin tests and to 1:100 for precipitin tests. Phenol or other preservatives are usually added to the diluting solution.

The skin test is performed by intradermal injection of .01 to 0.1 cc. of the antigen in one area of the forearm and a similar amount of control solution (diluting fluid) in another.* In a sensitive individual the test area increases in size and forms a wheal surrounded by a broad zone of erythema often reaching its maximum size in twenty minutes. This reaction is of the **immediate type,** which may have so subsided as to be called a doubtful reaction by the end of an hour, thus necessitating frequent observation. If the test area shows a wheal of 7 mm. or more and an erythema up to 20 mm. and is distinctly larger than the control area, the reaction is considered positive. This type of reaction occurs during the second or third weeks of infection. Some individuals show a **delayed type** of reaction which reaches its height in about 24 hours and resembles a mild tuberculin reaction. This occurs early in the infection prior to the appearance of the immediate reaction and has also been seen in long standing quiescent cases.

Many patients ill with trihinosis are not suspected of harboring the parasite. Laboratory procedures are invaluable in detecting atypical trichinous infections and in verifying clinical impressions.

The finding of Trichinella spiralis in stool blood, bile, cerebrospinal fluid and biopsy is possible but the diagnosis may be made without recovering the parasites from the patient. Blood eosinophilia is the most useful clue. Skin and precipitin tests establish that the eosinophilia is due to Trichinella invasion rather than to some other cause.—James B. McNaught, M.D., San Francisco; Texas State Jour. of Medicine, Vol. XXXVIII, No. 4, August, 1942.

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*Trichinella antigen for skin tests is now available through Eli Lilly and Co., and undoubtedly will soon be made available by other firms supplying biologic preparations.

Refrigeration of Gangrenous Extremities Before Amputation

Report of a Case

WILLIAM EGGERS SMITH, M.D.

GANGRENOUS, necrotic extremities are usually associated with bacterial invasion and toxic absorption, which greatly impairs the recuperative powers of the patient. Any method which tends to inhibit or prevent this process is of distinct benefit.

Refrigeration of a gangrenous extremity affords us the time to administer supportive treatment which will bring the patient in the best possible condition for surgery and offers a method or an adjunct to treatment which has many advantages.

Theoretically it inhibits bacterial invasion and when employed in conjunction with a tourniquet to the affected limb delays or prevents the absorption of toxins. The tissues remain in approximately the same or exact state in which they were at the time of application of ice. All foul odoriferous discharge is lessened or ceases. Sloughing of tissues is retarded and bleeding is arrested. Pain in the extremity usually disappears soon after ice is applied.

Allen,[1] in his extensive experimental and clinical work on the effect of cooling extremities which are rendered ischemic by ligation of principle vessels by tourniquet, or by embolic occlusion, suggests theoretically at least, its use as a preliminary step to embolectomy and to amputation of gangrenous extremities due to peripheral vascular disease. The time limit in which the cooling effect can be applied in respect to embolectomy, should be less than four hours. In any case in which survival of the extremity is to be expected cooling of the part involved should not go beyond the four hour period. This procedure for more than a few hours is definitely contraindicated for a limb which is not to be amputated. However, cooling does increase the time in which adequate supportive treatment can be administered, which may be the difference between life and death of the patient.

Crossman et al,[6] in their recent reported series of cases of diabetic and arteriosclerotic gangrene are convinced that refrigeration prior to amputation in these cases was of distinct value. Lower levels of amputation were made possible and infectious dangers are less with refrigeration.

Brooks and Duncan[2] have demonstrated that cooling of tissues does delay gangrene. Diminishing the temperature from 15° to 1° centigrade added at least 48 hours to the duration of viability. They found that marked fibrous replacement of muscles took place in those instances in which the continuation of a low temperature has prevented the development of gangrene. In their work they subjected rat tails to a pressure of 130 m Hg. for 18 hours. At room temperature all developed gangrene and those maintained at 1°C. none developed gangrene.

The Author

● Dr. Smith, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1920; associate director of Surgery, Fairview Park Hospital, Cleveland, Ohio.

Local asphyxia, as shown by Allen's[1] experiments can be tolerated for a much longer period of time at reduced temperatures than at body or febrile temperatures. This is presumably due to a retardation of metabolism. Refrigeration reduces metabolism to a minimum and inhibits bacterial activity. In ligating the hind legs of laboratory animals for 15 hours or longer with rubber band tourniquets it was demonstrated that shock and gangrene are delayed and decreased at reduced temperatures. Shock appears to be more or less abolished by refrigeration. The tourniquet apparently prevents the diffusion or absorption of toxins. It was also demonstrated that the ligation of a rat's hind leg for a period of five hours is always fatal. After removal of the ligature symptoms of secondary shock progress with final death of the animal. However even though the ligation is of 15 hours or longer duration, if amputation of the ligated extremity is performed none of the symptoms of secondary shock present themselves. If the extremity is amputated within from one to three hours after release of the ligature, before severe symptoms of secondary shock are present the animal can still survive. In these experiments it was demonstrated that reduced temperatures delayed gangerene and the tourniquet prevented the absorption of presumable toxins contributing to secondary shock. He has further shown that injecting a given toxin in the ligated extremity of

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Submitted March 17, 1942.

an animal, that this animal can survive many times the fatal dose as compared with one on whose extremity no ligation was done.

Prolonged tourniquet application to a large extremity can produce a typical form of secondary shock as Cannon[4] has reported in a case in which prolonged occlusion of the circulation in the upper arm caused fatal shock. The case to be reported was one of ischemic gangerene which is often and usually a sequel to the obstruction or destruction of the popliteal, femoral, or axillary arteries. In this case destruction of the popliteral artery produced effects similar to ligation or tourniquet application with the exception that the collateral blood supply and venous return was presumably still intact.

Immediate measures should be taken to combat circulatory failure to the part involved which Bigger[3] enumerates as follows, sympathetic nerve block, prevention and control of infection, occlusion of concomitant veins, position of involved extremity, avoidance of undue pressure, local temperature control, Pavaex therapy and other measures such as restoration of blood volume, cell content, etc.

The cases reported by Crossman et al[6] in which reduced temperature was employed were instances of diabetic and arteriosclerotic gangrene. However, McElvenny[5] recently reported a case of traumatic amputation of both lower extremities, one through the knee joint and the other just above the knee. Refrigeration of both stumps was employed with striking results. Pain ceased, shock was combated, foul odor disappeared and as he states "The patient's improvement was remarkable following the application of ice".

With these thoughts in mind the following case was treated along the general principles of this regime.

At 4 A.M. on the morning of Sept. 24, 1941, F.H.R. at Orwell, Ohio, went out to his garage to start his automobile. The battery being low he cranked the car not knowing it had been left in gear. The motor immediately started, the car lunged forward pinning him against a 4x4 timber which had been installed as an improvised bumper in the rear of the garage.

He was released by members of his family and transported to Fairview Park Hospital in Cleveland, a distance of approximately 50 miles. I first saw him at the hospital at 7 A.M. He was a well developed, well nourished man 61 years of age who apparently was in profound shock. His blood pressure reading at this time was 40/0, radial pulse was barely perceptible. He was placed on a Bradford frame and moved to the ward, where he was placed in shock position and 50 cc. of 50 per cent glucose was immediately given intravenously. On physial examination the patient had a pallid ashen appearance and was covered with cold, clammy perspiration. He mumbled and groaned incoherently. General physical examination of the thorax and abdomen was not remarkable.

It was evident that he had sustained supracondylar fractures of both femurs. Both lower extremities lay in the position of external rotation. Abnormal mobility and crepitation was present just above both knee joints.

It was noted that the left foot and lower limb were blanched and cold to touch. On returning to semi-consciousness he complained of severe pain in the left lower leg and foot.

A large hematoma was evident just proximal and behind the left knee in the popliteal space, which was fluctuant on pressure and the skin here was lacerated. However, there was very little oozing of blood. The dorsalis pedis artery on the left and also the popliteal artery could not be palpated. Pulsation of the dorsalis pedis and popliteal arteries were palpable in the right limb. In the left leg only the femoral artery was palpable. Oscillometer readings were not taken. However, the left leg presented all clinical signs of a torn popliteal artery.

The patient was immediately typed for transfusion. The blood counts were, R.B.C. 3,520,00 W.B.C. 9,600 Hemoglobin 80 per cent. Blood pressure reading three hours after admission was 60/20. Ephedrine sulfate 0.05 GM and coramine 1 cc. were administered. A citrated blood transfusion of 500 cc. had been previously started, followed by 1500 cc. of intravenous physiological saline with 5 per cent glucose. Azochloramid dressing was applied to the laceration in the popliteal space. At this time exposure of the left popliteal artery was thought inadvisable, because of the precarious state of the patient.

Portable X-Rays were taken which revealed comminuted transverse fractures through the distal ends of the shafts of both femora. On the left there is some medial and anterior bowing of the main fragments. One fragment is detached and projects posterior, as shown in the accompanying photograph, Fig. No. 1.

It is believed this fragment probably tore through the popliteal artery. On the right as shown in Figure No. 2 there is marked medial and posterior displacement and slight over-riding of the principle fragments. The fracture on the right extends into the articular surface.

On the following day, Sept. 25, 1941, the patient's general condition was improved. His blood pressure was 120/70. However, the left leg and foot were still ischmeic. Development of the collateral circulation was hoped for, but we did not believe the condition of the patient which had improved, but was not favorable enough to warrant sypathetic block or to institute vascular massage in the Pavaex boot.

The following day we simply inserted Kirschner wires through both tibial tuberosities under local anesthesia for future skeletal traction.

On the third hospital day, Sept. 27, 1941, the left foot showed evidence of vesication, discoloration and lividity. The nails of the foot appeared blue. At this time the right leg was put up in extension with overhead traction. The patient's general condition was now quite good.

On the fifth hospital day, Sept. 29, 1941, gangrene of the left foot was spreading, the entire foot being now involved. Blood work at this time revealed R.B.C. 3,750,000 W.B.C. 14,800 hemoglobin 72 per cent. There was as yet no definite line of demarcation and as the patient's condition continued to be favorable we felt that it was safe to postpone amputation. On Oct. 1, 1941, collateral circulation apparently extended

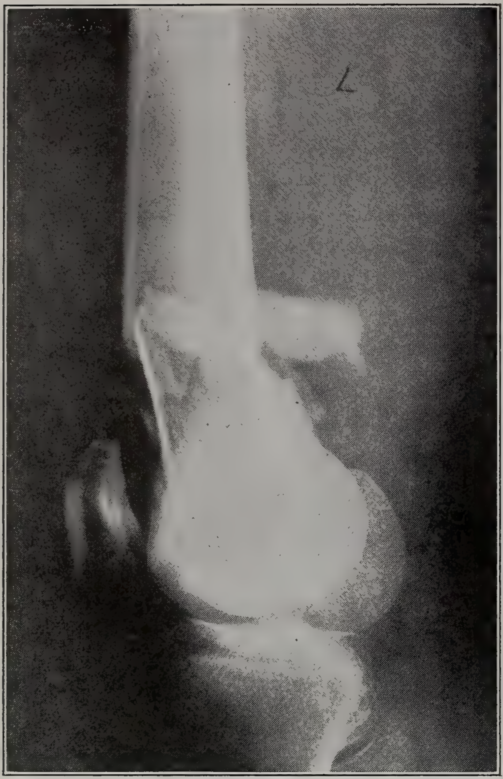

FIG. No. 1

Fragment projecting posterior which probably lacerated popliteal artery is plainly seen.

down to just above mid-calf, where there was a definite change in skin temperature.

On Oct. 2, 1941, the line of demarcation had extended up the leg somewhat towards the knee. The patient now first began to show signs of toxic absorption. His temperature became elevated to 38°, and his pulse rate gradually increased from 80 to 110. His left foot showed evidence of necrosis and disintegration with a dark colored foul discharge. He began to have severe pain in the limb just below the knee which required morphia sulphate in ¼ grain doses to abolish.

On the evening of the next day, Oct. 3, 1941, it was observed that the line of demarcation now had remained stationary just below the knee. At this time the patient was now much more toxic and the odoriferous discharge had increased. It was here we encased the leg in shaved ice in an improvised metal trough. The ice was applied to extend just above the demaraction line. No tourniquet was applied.

By the following morning it was surprising to see the remarkable improvement which had taken place in the patient's general condition. His temperature dropped to 37° and his pulse rate to 80. The pain in his leg had disappeared and the discharge ceased. He felt so well that he ate a good meal which he had not been able to do during the preceding three days. Since his condition had improved amputation was decided upon, to be performed the next morning.

The right leg was bandaged to a posterior plaster splint, a tourniquet was placed high on the left thigh and the patient was taken to surgery. Under light nitrous oxide anesthesia the left leg was amputated just above the fracture site. A long anterior and a shorter posterior flap were made because of the laceration in the popliteal space. The popliteal artery was found completely torn through and thrombosed. It was doubly ligated with chromic catgut. The sciatic nerve was drawn down, injected with 1 per cent novocaine followed by alcohol injection, severed and allowed to contract. The muscles were loosely approximated with chromic catgut, two soft rubber drains were inserted and the skin flaps loosely brought together with a few dermal sutures.

He withstood the operative ordeal remarkably well. At the end of the operation his blood pressure was 110/70, pulse rate 90. On returning to the ward he was given an intravenous infusion of 1500 cc. of physiological saline with 5 per cent glucose.

On the following day his blood work showed R.B.C. 3,190,000, W.B.C. 12,500, hemoglobin 84 per cent, polynuclear neutrophiles 84 per cent, small monouclear 13 per cent, juveniles 3 per cent, Kahn and Kline negative. His condition was satisfactory so no blood transfusion which had been contemplated was given. His blood pressure now was 130/80. The two rubber drains were removed and there was but a slight serous discharge.

On the fifth postoperative day an increased amount of sero-sanguinous discharge was noted.

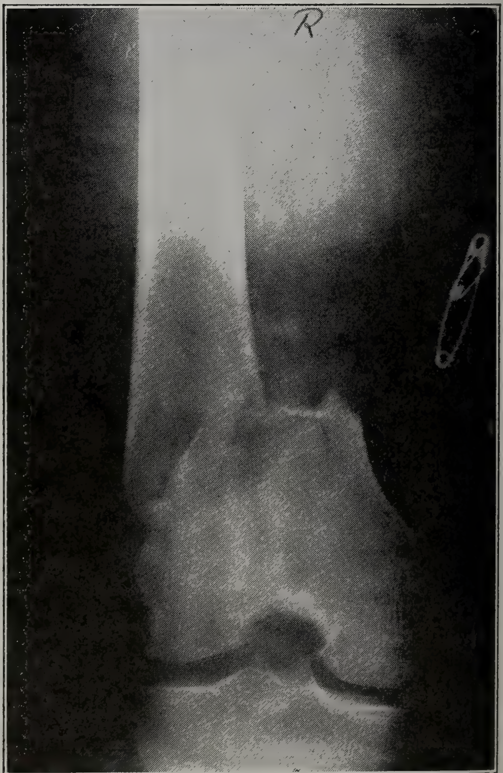

FIG. No. 2

Showing severity of fracture through right femur.

Cultures were taken of the stump and sulfanilamide powder was applied. The culture proved negative for bacterial growth and the stump went on to rapid healing which was complete in about two weeks.

During the postoperative period he received multi-vitamin therapy with additional vitamin C. The right leg was again put up in extension and after four weeks a hip spica plaster cast extending down to the toes was applied. He was discharged the following day and instructed to return in 10 weeks for application of a shorter cast.

He was readmitted to the hospital Jan. 5, 1942. The stump of the left leg was in excellent condition. The patient complained of no ghost pains and says the stump is entirely comfortable. X-Ray of the right leg showed abundant callous formation.

This case is presented to show the effect of reduced temperature or refrigeration of a traumatized gangrenous limb as observed in this particular case.

It appeared to be of distinct benefit for after the limb was iced even though no tourniquet was applied the improvement in his general condition was remarkable. The discharge from the gangrenous limb was definitely lessened, his symptoms of toxicity abated and pain abolished. This procedure permited us to postpone amputation an additional 24 hours during which time the patient's general condition was markedly improved.

The belief that bacterial invasion is inhibited would seem substantiated in this case at least by the fact that the stump cultures were negative.

The condition of the tissues of the amputated limb were maintained by refrigeration in the exact state they were at the time of applying ice. Muscles at some distance below the site of amputation were red and firm with no evidence of necrosis. There was no disintegration of the fascia or subcutaneous fat.

The method of refrigeration or application of reduced temperatures to gangrenous extremities as advocated by Allen was of distinct value in this case.

United Bank Bldg.

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Intravenous Fluid Therapy

Besides the quantitative and qualitative aspects of fluids, intravenous infusions involve certain practical considerations. Next to the adequate precautions in the preparation of the solution and apparatus, the responsibility of which is now largely carried by reliable commercial firms, the rate of injection is very important.

For simple fluid replacement, 50 to 80 drops per minute are well tolerated. This rate equals 300 to 500 cc. per hour and easily permits the administration of 2000 to 3500 cc. in a few hours. The estimated amount of fluid should be given preferably during the day so the patient is not disturbed in the course of the night. Except in cases of traumatic shock or hemorrhage in which prompt restoration of an effective circulating volume is desirable, intravenous fluid should not be administered too rapidly as it may cause acute cardiac dilatation, especially in patients with a cardiac defect. When using 10 per cent glucose, a slower rate of from 30 to 50 drops per minute (200-300 cc. per hour) increases its utilization and minimizes the "spilling over" into the urine.

Hypertonic solutions of glucose frequently cause phlebitis or thrombosis at the site of injection. This is also an important consideration when repeated injections are necessary over a long period. The frequency of venous thrombosis following venipuncture may be appreciably reduced by injecting a few cubic centimeters of normal saline through the same needle in which the hypertonic glucose solution has been administered. If the venipuncture is rendered difficult on account of unusually small veins, a hot moist pack covering the arm, wrist and hand about half an hour before performing the injection may facilitate the procedure. Fortunately, the method of giving intravenous fluid by continuous infusion for 24 or 48 hours has been practically discarded because it often caused a depletion of the plasma proteins, thrombosis and fatal embolism. A well spaced schedule of interrupted infusions of 1000 cc. is much safer.

Extensive studies of the mineral and water metabolism of the body have made possible the safe and rational intravenous administration of relatively large amounts of fluid.

Dehydration, the most important indication for fluid therapy, may result from numerous causes, and the fluid requirement of every patient should be calculated and considered individually.

The intravenous use of saline or Ringer's solution is specifically indicated when the serum electrolytes is depleted, as by repeated vomiting, diarrhea, or other abnormal routes, but contraindicated over any prolonged period because of their tendency to produce edema.—Armando J. Rotondi, M.D., Chicago; The Ill. Med. Jour., Vol. 82, No. 2, August, 1942.

The Daily Weight in the Management of Congestive Heart Failure

JOSEPH I. GOODMAN, M.D., JOSEPH F. CORSARO, M.D., LOUIS C. KOSSUTH, AND
LEWIS W. WHITING, M.D.

THE importance of the body weight in various metabolic processes has long been recognized and firmly established. Although the use of the scale has proved of unquestioned value in treating children on occasions when all other methods of observation have been found wanting, it is strange that it should not have been employed more extensively in the care of adult patients. The literature makes special reference to the significance of the body weight in evaluating diuresis (1-5). Nevertheless, it has become an almost universal custom clinically to follow changes in water metabolism only by comparing the volume of fluid taken in with the volume of urine excreted.

Heretofore, this latter method likewise has been preferred in the treatment of congestive heart failure, the management of which has always been beset with difficulties because, as will be shown, even the most accurate measurements of the fluid intake and the urinary output have proved unsatisfactory. Even the daily physical examination of the patient can often be inefficient for, as we know, fluid may accumulate in the tissues without being demonstrable clinically. It is our belief that if the problem of supervision of water balance were simplified, the physician's efforts to obtain ideal theraupetic results would be enhanced.

Therefore, it seemed feasible that the strict daily use of the scale might provide the means to overcome this problem of body fluid control, and we have been gratified to find in a group of 47 cases that this procedure has come to be of definite clinical value.

TECHNIQUE OF THE DAILY WEIGHT REGISTRATION

Although the technique which is described herein might at first seem self-explanatory, it is well to stress certain salient facts in the employment of this particular regimen. The patients are weighed daily before breakfast between 7:00 a.m. and 8:00 a.m., while they are still clothed in the hospital gown. Weighing even seriously ill patients, who in our institution are allowed on their feet to a liberal degree, is not contraindicated, but in selected cases the scale may be moved to the bedside. The weight is appropriately recorded on a chart especially designed for this purpose (Fig. 1). In addition to the daily weight, the pulse rate, the diuretic agents employed, and the volume of fluid intake and output can be conveniently recorded. Such a chart shows at first glance a graphic presentation of the actual status of the water balance, but primarily demonstrates with great clarity the relationship of the therapy to the state of body water metabolism.

The manner in which this weight chart can be utilized to the best advantage is demonstrated by the study of the progress of the following case. One can see (Fig. 1) that this patient, originally in an advanced state of congestive heart failure, has been brought in relatively few days, with adequate therapy, to a point where no detectable edema can be uncovered by physical examination. Yet further treatment of this patient with mercurial diuretics, given at the same frequency, brings about a still further degree of clinical improvement as is exemplified chiefly by a change in the subjective state. Subsequently there even ensues a substantial gain in weight which, as a careful study of the chart indicates can result only from bodily improvement and not from fluid retention.

In the treatment of congestive heart failure, the physician should aim to attain a state in which even minute amounts of extra fluid are no longer present in the tissues of the patient. At

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Submitted May 1, 1942.

From the Cuyahoga County Nursing Home, 2905 Franklin Boulevard, Cleveland.

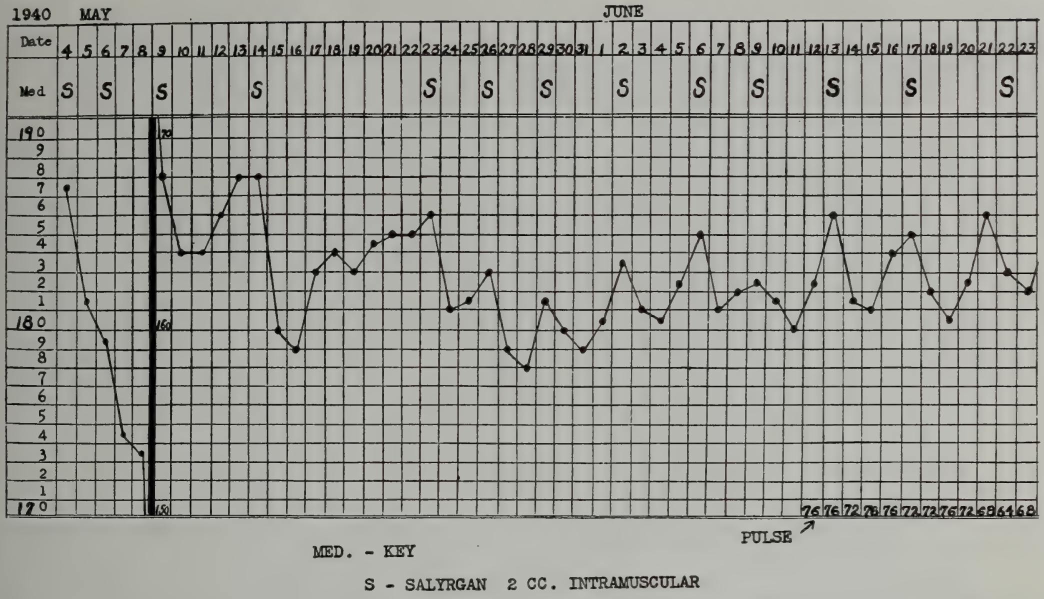

Fig. 1—State of advanced congestive heart failure. A 57 year old male with hypertension; edema of legs, scrotum and abdominal wall; rales at lung bases, wheezes throughout the lungs, engorged liver.

this point, designated by us as the "basal-weight-level",[9] repeated injections of mercurial diuretics cannot be expected to dislodge any more fluid from the body. This level remains remarkably constant, hence any rise above it serves as an indicator for the immediate necessity of a diuretic injection. Such a therapeutic goal can be attained only by careful analysis of the daily weight curve.

Lack of adherence to the strict day-to-day record of the weight of the patient may seem relatively unimportant, yet we have found that an omission of even a few days may obscure the actual status of the water balance. When utilized in this manner, the weight chart proves to be of immeasurable assistance, both in the evaluation of the degree of congestion which is present in a cardiac patient at any given time, and in its use as a guide for the future management of the patient in so far as his diuretic needs are concerned.

DAILY WEIGHT VERSUS INTAKE-OUTPUT VOLUMES

It has been pointed out above that in most clinics the custom has generally been adopted to appraise the effect of the diuresis by comparing the volume of consumed fluid with that excreted by the urinary tract. The uncertainties which are involved in maintaining an accurate record of the fluid intake and the urinary output are so often dependent upon the individual reliability of the patient, that even the most efficient nurses or attendants are sometimes powerless to avoid unintentional omissions. In contrast to this oft fallacious mode of estimating the essential body fluid changes, we emphasize this simple, yet accurate, method which entails only the daily use of the scale. The disadvantages which have been enumerated for the intake-output volume are hereby overcome. It is still more important to realize, however, that the weight loss recorded for the 24 hour period following the administration of a diuretic, envisages all of the means by which fluid is eliminated from the body and not merely that by which it is excreted from the urinary tract.

It should be emphasized that errors are introduced by neglecting to consider the fluid which is lost from the intestinal tract, the lungs and the skin. Newburgh and Johnston[6] have confirmed anew that water in sizable quantity is vaporized, both from the respiratory tract and the skin. They conclude, therefore, that the insensible loss of water, because of its magnitude, is an important fraction of the water excreted by the organism. Heller[1] has shown, in the consideration of diuretics, that the extra-renal factors must be considered equally or even more important than the renal component. In connection with the xanthine group, for example, he has demonstrated in many cases that there is no increase in the volume of the renal excretion in the face of an actual loss in body weight. He concludes, and we agree, that these extra-renal factors can be measured only when the strict use of the scale becomes routine.

Close observation of many graphic weight records has permitted us to get a deeper insight of the subtle, sometimes astonishing, changes in the underlying fluid fluctuations which can occur in man. For example, a patient, whose course during the early stages of treatment for advanced congestive heart failure was found to demonstrate what we consider an important phenomenon in the problem of insensible fluid change. During the period from February 14 to March 7, both methods were used to evaluate the degree of diuresis (Fig. 2). We note that if the index of successful treatment for edema were based solely on the urinary output volume compared with the fluid intake volume, as is commonly done, it could readily have been assumed (see period from February 25 to March 7) that a highly satisfactory diuretic result had been achieved. Yet, during the very period of apparently successful diuretic response, the body weight actually increased. On certain days our patient (Fig. 2) gained two and one-half to four pounds, although judging from the urinary output, there was an excess of water excretion over the fluid intake on the very same days. Inasmuch as we could not presume a net gain of avoirdupois in a case of manifest cardiac decompensation, we were forced to conclude that the fluid had been retained over and above the volume which had been excreted as the result of the diuresis. Such an increase could not be explained on the basis of intake-output volume differences but only by implicating the extra-renal fraction of the water metabolism, at least in this special instance. Actually the signs of gross edema which soon developed confirmed the reliability of the scale. The above finding allowed only one final interpretation: either that the patient had consumed an excess of fluid surreptitiously or that we were dealing with a case of so-called negative water balance. Zak[7] maintains that certain patients suffering from congestive heart failure are able to absorb water from the air and calls this "negative insensible perspiration". Neurath[8], a pupil of Zak, published further observations which seemed to substantiate this possibility. Our case, then, appears to demonstrate that though a satisfactory diuresis had been produced, in that the urinary output volume exceeded the intake volume, important extra-renal changes had taken place as well.

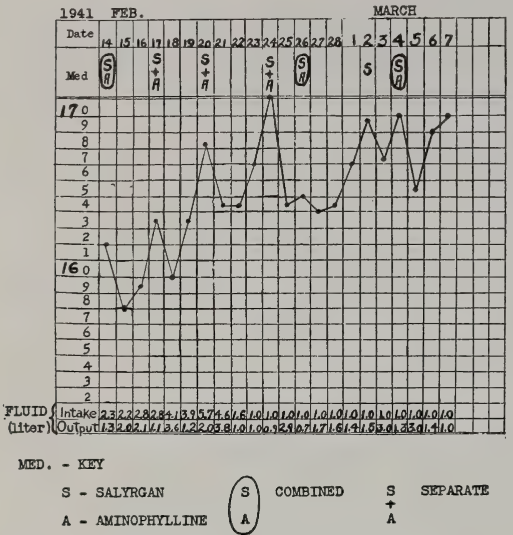

Fig. 2—Demonstrates the comparative value of intake-output measurement as opposed to the daily weight. Note steady rising weight despite frequent use of diuretic and apparently satisfactory urinary output in the patient.

The facts presented in this section would warrant, in any critical consideration of water metabolism, the replacement of the intake-output estimations by the more reliable graphic representation of the daily weight.

LATENT EDEMA

As mentioned in the introductory remarks, fluid may accumulate in the tissues without being detectable by clinical means. A rise in weight up to as high as 10 pounds has been observed. The importance of the recognition of the existence of fluid retention at the very outset is undeniable. Our strict adherence to the daily weighing of the patients enabled us to recognize this tendency in dropsical patients, as can be exemplified by the following case.

The patient whose chart is represented in Fig. 3 had exhibited a constant weight curve for over one month. Inasmuch as the use of diuretics was not deemed necessary, he was placed on a weekly weight schedule. On June 19 (Fig. 3) he suddenly gained three and one-half pounds, but there was no objective edema. The following week, June 26, he gained six pounds additional (a total of nine and one-half pounds in two weeks). At this point the only physical finding was a slight degree of pretibial edema. The excess accumulation disappeared promptly after the injection of salyrgan.

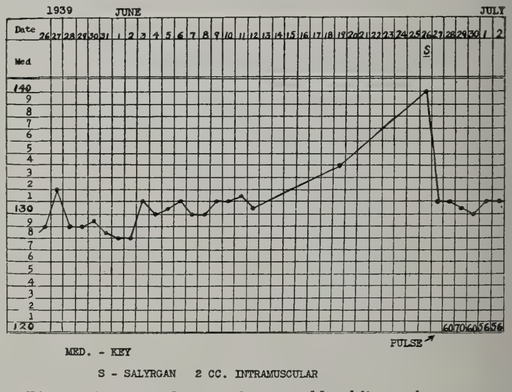

Fig. 3—Latent edema; 60 year old white male; compensated aortic insufficiency.

This example demonstrates the significance of the recognition of latent edema and shows how extensive it may become before clinical evi-

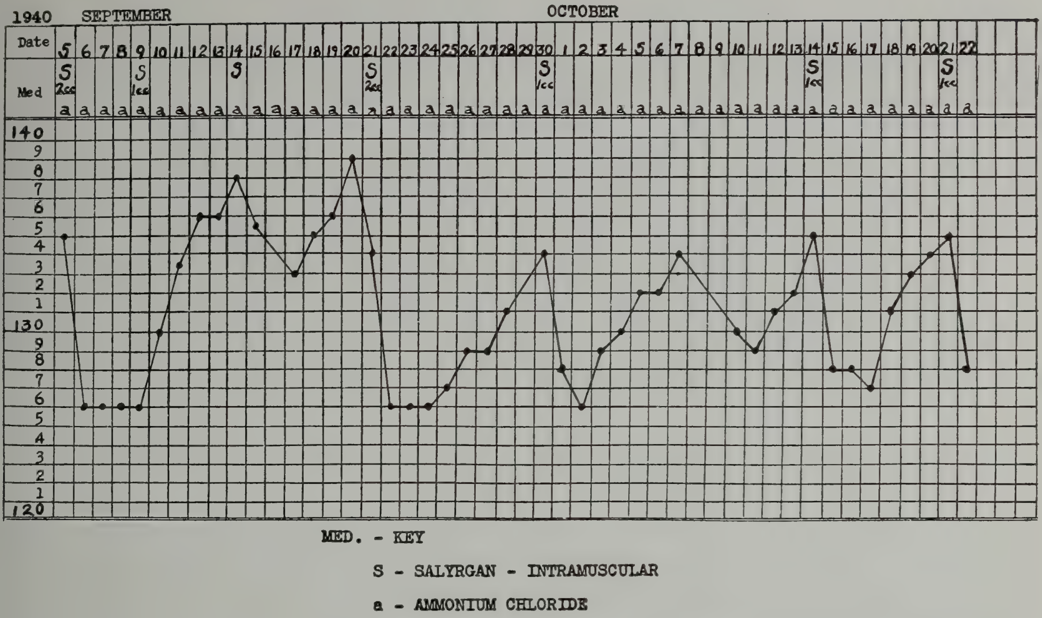

Fig. 4—Pleural effusion; 65 year old white male; hypertensive heart disease; dyspnea, cyanosis and engorged liver.

dence is apparent. The importance of detecting latent edema cannot be over-stressed, inasmuch as heretofore, we had no real means to suspect the development of this portentous sign in early cardiac insufficiency. Only the strictest daily use of the scale, which we failed to do between June 13 and June 27, could have drawn attention to these changes in the water balance at the very inception.

ACCUMULATION OF FLUID IN BODY CAVITIES

The early detection of fluid in the various body cavities, viz. ascites or pleural effusions, has been another result of the use of the weight chart. The presence of a small volume of fluid may be difficult to ascertain, and may not necessarily be important of itself, but the accumulation in a larger quantity may inhibit the diuretic effects of the drug. It is obvious that the knowledge of this condition at the proper moment will be of important assistance. The weight record of the patient demonstrated in Fig. 4 shows that the administration of a diuretic in the known presence of a pleural effusion produced a satisfactory response on September 5, but a similar injection four days later (September 9) resulted in an unsatisfactory diuresis. In fact, there was actually a gain in weight of 13 pounds in the next 11 days. Because of this, on September 20 it was deemed necessary to perform a thoracentesis (Fig. 4). Afterward, as can be seen, a satisfactory diuresis again resulted from the administration of a mercurial. It is further noteworthy that the quantity of liquid actually removed by the thoracentesis represents but a small portion of the total amount of weight lost as the result of the injection.

The study of the weight curve in this case made it possible to recognize that the development of a pleural effusion had inhibited the expected diuretic effect. This interesting occurrence has also been observed by us in other instances, so that it cannot be considered a coincidence. Furthermore, this case again draws attention to a phenomenon which has been noted by others as well, i.e. that the effect of a mercurial diuretic may be greatly enhanced when preceded by the removal of fluid from the pleural cavity. Therefore, in a patient with congestive heart failure, the lack of a satisfactory response from diuretics should promptly lead one to suspect the possibility of an accumulation of fluid in the pleural or peritoneal cavity.

EVALUATION OF DIURETIC DRUGS

As a result of the important facts which have been brought to light by using the graphic weight records, the administration of diuretics to cardiac patients has come to be more accurate. Goodman, Corsaro and Stacy[9] in a survey have demonstrated the relative efficacy of the various commonly used diuretics. Such factors as the size of the dosage, the therapeutic efficiency of the various agents, the frequency of this use and finally the selection of the proper mode of administration have been simplified.

SUMMARY

1. The strict daily use of the scale and graphic weight record has been employed by us to great advantage in congestive heart failure

in preference to the prevalent method of the fluid intake and output measurements.

2. The graphic record of the daily weight, attentively followed, allows an early recognition of latent edema in incipient cardiac insufficiency and facilitates the evaluation of diuretic drugs.

3. By the use of the day-to-day weight record, the unsuspected presence of pleural effusions has been detected in several cases. Incidentally it has been observed that such effusions may have an inhibitory effect upon diuresis.

4. A more universal adoption of the strict daily weight, at present the most accurate guide for the treatment of patients who have or have had congestive heart failure, is urged.

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Recent Advances in Chemistry

The following abstracts are from some of the papers read before the American Chemical Society, where more than 3,000 of the nation's leading chemists gathered at an annual meeting of the American Chemical Society, at Memphis, Tenn.

Discovery of how to break down non-fermentable sugars in corn, wood and paper-mill waste liquors by means of enzymes produced by fungi, may lead to a new industry producing alcohol from hitherto unused materials. Prof. Fredrich F. Nord and John C. Wirth, of Fordham University, reported the production for the first time of pyruvic acid, (CH_3CO. COOH; mol. wt. 88.03; a yellowish liquid with a peculiar odor resembling that of acetic acid. It is used in the manufacture of cinchophen,) a heavy substance from pentose which is an intermediate step in the production of alcohol. Demonstration that the common-bread molds "aspergillus, penicillium, mucor, etc.,) can be used in converting grain into alcohol, with greater speed, economy and efficiency than the customary malt from sprouting barley.

Drs. L. A. Underkofler, Lu Chen Hao and Ellis Fulmer of Iowa State College stated that this "mold bran" used to substitute for malt in saccharifying corn and other mash, promises to be the elimination of any bottleneck in the expanded grain alcohol industry. Use of the molds in alcoholic fermentation of 100,000,000 bushels of corn or wheat would give about 25,000,000 more gallons of alcohol than would be obtained with malt. The importance of the Fordham discovery is that yeast used to break down the fermentable sugars, chief current source of alcohol, attacks non-fermentable sugars without effect. As a result, the non-fermentable sugars which exist side by side in corn, wood, or paper-mill waste liquors with the fermentable sugars, have been ignored in alcohol manufacture for want of an attacking agent. Sugar is an energy supplier and by utilizing the C_5 chain—a compound of 5 carbon atoms present in non-fermentable sugars —a new source of energy could be obtained. Drs. Nord and Wirth utilized certain mineral foodstuffs in cultivating the fungi that successfully attack the non-fermentable sugars, or pentose.

Through this agent is was possible to isolate pyruvic acid in large amounts, as an intermediate, or go-between, in the formation of alcohol from pentose. The isolation of pyruvic acid provides the clue concerning the sequences of the phases of conversion of pentose to alcohol.—Abstract by Harry Iker, Chicago, Illinois.

Vitamins in Surgery

The Wernicke syndrome is recognized among pathologists as due to thiamin deficiency. It includes opthalmoplegia, ataxia, polyneuritis and clouding of consciousness. There may be gastrointestinal disturbances, vomiting and diarrhea. The special pathology resulting in this syndrome is confined to the periventricular gray matter which shows small foci of degeneration and varicose changes of the vessels of that area. This condition results after continued use of alcohol.

Starr lists five important considerations in surgical patients: (1) state of hydration, (2) protein metabolism, (3) acid-base balance, (4) carbohydrate reserve, (5) vasomotor tone, circulation and heart reserve. Natural or supplied vitamins support all these conditions. Holman's recommendation is an adequate protein diet, sufficient carbohyrades, and use of vitamins before and after operation. Many of our surgical patients do well without these measures because they have no depletion. Some do less satifactorily and some do badly because of certain lack, while others fail to recover because of very low or no reserves. If we do not practice routine clinical or laboratory tests, we must give our surgical patients the advantage of diets and vitamins.—William F. Howard, M.D., Pocatello, Idaho; Northwest Medicine, Vol. 41, No. 8, August, 1942.

Influenzal Meningitis

Review of Treatment of 14 Children with Type B Influenza Bacillus Meningitis

AARON SCHWINGER, M.D.

IN these days of rapidly changing procedures in chemotherapy and serotherapy, it is an uncomfortable thought that, by the time a report on this subject is written, often it is merely space consuming, and should be rewritten immediately to include the changing trends. Thus, it is obvious that the title referring to "present treatment" of influenzal meningitis may now be inaccurate.

Influenzal meningitis is an acute purulent meningitis caused by the Haemophilus influenzae, with signs and symptoms which are not different from those of other acute purulent meningitides. However, there are certain distinctions that require comment.

In 1937, there appeared the statement that a virus is the cause of this disease, with the bacillus a secondary invader. Gallavan found encephalitis in a few chick embryos inoculated with the Haemophilus influenzae. However, the concensus of opinion is that the Haemophilus influenzae is the etiologic agent. It should be mentioned that the incidence of this disease is not increased during epidemics of influenza.

Influenzal meningitis is primarily a disease of children, and the majority of cases occur in the age group from three months to two years. In the series of cases reported by Rivers, Jenks and Radbill, Fothergill, and Bloom, the incidence in patients under two years of age was respectively 79 per cent, 80 per cent, 75 per cent and 62 per cent. A fatal case in an infant 19 days of age with meningitis and peritonitis due to Haemophilus influenzae has been reported.

This peculiar distribution in age incidence led Fothergill and Wright to investigate the bactericidal titre of the blood of patients of various age groups against these particular organisms. They found that the titre was high in cord blood. After the newborn period, the titre diminished so that, with rare exceptions, the blood exhibited no bactericidal power between two and a half months and three years of age. After three years of age, the titre rose steadily. This finding of low titre coincides with the age of greatest incidence of influenzal meningitis. They found that one cubic centimeter of adult blood could kill at least fifteen million virulent influenza bacilli. It has also been reported that transfusions have sterilized the blood stream of patients with an influenza bacillus septicemia. Although the clinical evidence does not substantiate the experimental evidence, transfusions remain valuable adjuncts in the treatment of this disease.

The Author

● Dr. Schwinger, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1940; interne, Cincinnati General Hospital; Chief Resident, Children's Hospital.

Further investigation by Ward, Wright, and Fothergill revealed that the spinal fluid in influenzal meningitis very rarely had complement. This finding is in contrast to the presence of complement in the spinal fluid in a larger percentage of cases with various types of other acute inflammatory disease of the central nervous system. Furthermore, they found that when complement was introduced into the spinal fluid in these cases, no trace of it could be found after two hours. Accordingly, they recommended that complement should be added to the immune serum administered intrathecally, since, in test tube experiments, complemental bacteriolysis was the important killing mechanism. It was shown that a small amount of immune serum and a considerably larger quantity of complement were required for bacteriolysis in the test tube. In spite of this work, either more immune horse serum than complement or equal parts of each were used. While many workers in this field have used immune serum and complement, Neal failed to see the value of the complement and did not use it.

Bacillus influenzae was first described by Pfeiffer in 1893. The first authentic case of influenzal meningitis was reported by Slawyk in 1899, with Pfeiffer supervising the bacteriologic work. Since the demonstration by Povitsky that the bacilli causing influenzal meningitis tended to fall into a distinct group and Grekowitz' suggestion that the organisms might have a capsule, which was actually demonstrated by Pittman in 1931, more rational therapy was

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Read before the Section on Pediatrics, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, April 28-30, 1942.

begun. It was shown that there are smooth and rough colonies and that only the organisms of the smooth colonies have capsules which are polysaccharide in nature. In culture fluids of the smooth strains, this carbohydrate has been demonstrated and termed specific soluble substance. Subsequently, Pittman demonstrated two immunological types of the organism, A and B. Of the strains studied, Pittman found 37 of 40, Silverthorne 31 of 32, and Mulder 28 of 29 to be type B. Pittman, in a personal communication to Mulder in 1939, stated that she had demonstrated types A, B, C, D, E, and F. The predominance of type B is evident. Mulder stated that in rare cases the respiratory type of the influenza bacillus may cause the meningitis.

Serotherapy was begun by Wollstein in 1911, using an immune goat serum, but there have been no recent reports on its use. In 1932, Ward and Fothergill reported a 100 per cent case fatality rate in a series of patients treated with immune horse serum and complement. Reporting on the use of immune horse serum, Pittman in 1933 had one recovery in 18 cases, Neal in 1934 had four recoveries in 111 cases, and Lindsay in 1935 had one recovery in 58 cases. Wilkes-Weiss' summary in 1936 showed a case fatality rate of 97.6 per cent in children under two years of age, and 79.5 per cent in children over two years of age. The importance of concentrating the immune horse serum and making it from smooth strains was emphasized. In series of cases treated with immune horse serum and complement, Fothergill reported a case fatality rate of 84.6 per cent and Silverthorne a case fatality rate of 72 per cent. Aleman collected 478 cases under two years of age and reported a case fatality rate of 96.8 per cent.

That vaccines should be considered in therapy is suggested by two reports of recovery of patients treated with vaccine. Aleman referred to the use of autogenous vaccines by Toomey in four cases that recovered.

The year 1937 brought new armamentaria in the form of the sulfonamide drugs. Subsequently, there appeared isolated reports of recovery and fatal outcome in patients treated with these drugs. Long and Bliss were not impressed with the results of sulfanilamide therapy in influenzal meningitis. In 1937, Povitzky recommended the combined use of immune horse serum and the sulfonamide drugs. Lindsay in 1940 reported a case fatality rate of 54 per cent and Neal reported a case fatality rate of 52 per cent in cases treated with immune horse serum and the sulfonamide drugs. There are isolated reports of recovery and death on the combined form of therapy.

In 1937 Horsfall et al[1] demonstrated that rabbit antipneumococcic serum may be superior to horse antipneumococcic serum. It was not long thereafter that Alexander[2,3] reported the preparation of anti-Haemophilus influenza type B rabbit serum. Silverthorne[4] in 1940 reported the recovery of a patient treated with immune rabbit serum. In 1941, Alexander[5] reported a case fatality rate of 35 per cent in 28 patients treated with type B Haemophilus influenzae immune rabbit serum and sulfanilamide. In a personal communication, Alexander[6] reported a 30 per cent case fatality rate in 43 patients. This is now especially significant since Fothergill and Neal believe that the incidence has been increasing in recent years. Wilson and Scott and Bruce reported individual case recoveries in patients treated with Alexander's immune rabbit serum and the sulfonamide drugs.

From 1925 to July, 1940, there were 59 cases of influenzal meningitis at the Children's Hospital and the Pediatric Department of the General Hospital in Cincinnati, with a case fatality rate of 100 per cent; 79.6 per cent of the patients were under two years of age. The cases were treated in the following manner:

Supportive	34
Immune horse serum	12
Imune horse serum and sulfanilamide	4
Sulfanilamide	2
Imune horse serum and sulfaypridine	1
Sulfapyridine	5
Vaccine	1

Since July, 1940, there have been 15 cases of influenzal meningitis, 14 of which have been type B and one type F.* Nine of the type B cases were under two years of age. All of the cases of type B influenzal meningitis were treated with type B immune rabbit serum and sulfonamide drugs with the following results:

	Recovered	Died
Alexander's serum and sulfapyridine	2	3
Alexander's serum, sulfathiazole, and sulfapyridine	1**	2
Alexander's serum and sulfadiazine	4	1
Alexander's serum, sulfadiazine, and sulfathiazole	1	..

Of the eight recoveries, five were under two years of age, one was 32 months of age, and the other two were five years old. (The patient with type F influenzal meningitis was nine years old and was treated successfully with sulfathiazole). The dosage of sulfonamide drugs was regulated by body weight, i.e. two to three grains per pound of body weight per 24 hours, with half of the 24 hours' calculated dose as the initial dose. All the patients treated with type B immune rabbit serum received a total dose of at least 125 milligrams precipitable antibody nitrogen intravenously, with 75 milligrams given as an initial dose. In the past year, the intrathecal administration of the immune rabbit serum has been abandoned. The criterion for the further administration of the immune rabbit serum, after the initial dose, is the inability of the patient's blood serum, in 1:10 dilution, to cause capsular swelling of the specific organisms from a fresh culture. Dr. F. Stevenson of the Children's Hospital in Cincinnati has initiated an additional test. If the patient remains ill despite the fact that his blood serum causes capsular swelling, the patient's spinal fluid is tested for its ability to cause capsular swelling of the organisms. If this test is negative, Dr. Stevenson is of the opinion that more immune rabbit serum is indicated until the spinal fluid causes capsular swelling or the patient improves clinically. The treatment of patients with type B influenzal meningitis with Alexander's type B Haemophilus influenzae rabbit serum and the sulfonamide drugs has reduced our case fatality rate from 100 per cent to 42.8 per cent.

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*Type F determined by Dr. H. E. Alexander.

**Previously reported: Schwinger, A.: J. Med. 22:196, July 1941.

The Francis test,[7] the intracutaneous injection of specific pneumococcus polysaccharide for determining the presence of sufficient circulating pneumococcus antibody, has been adapted[8] for testing influenzal meningitis patients treated with type B immune rabbit serum. This work followed the isolation of the specific polysaccharide of the Haemophilus influenzae and the study of its immunologic properties.[9] The test consists of the intracutaneous injection of 0.1 cubic centimeter of a 1:10,000 dilution of the type B influenza bacillus polysaccharide. An immediate wheal and erythema reaction occurring within 20 minutes after injection of the polysaccharide indicates sufficient circulating antibody. Immediate reactions have been obtained two to eight hours after the administration of the type B immune rabbit serum.

It has been shown that the combined therapy of type B immune rabbit serum and the sulfonamide drugs has further reduced the fatality rate in patients with influenzal meningitis. It is not possible to evaluate the individual factors responsible for the reduction of the fatality rate because of the small number of cases presented. As more cases of influenzal meningitis and their treatment are reported, it may be possible to determine the sulfonamide drug of choice. Alexander's type B immune rabbit serum is of definite therapeutic value.

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The Use and Abuse of the Barbiturates

The laity knows too much about the action of the barbiturates as sedatives, therefore a law should be enacted in every state prohibiting the sale of these drugs over the counter. Also to prevent abuse of his prescription, the practicing physician should forbid the refilling of it.

It is an excellent drug for inhibiting convulsions as in strychnine poisoning, tetanus, and status epilepticus. Pediatricians use phenobarbital to allay spasms in children and to quiet a fretful crying baby. In such practice there is certainly a misuse of this drug.

The average dose used to produce sleep does not depress the respiration, but large doses especially such as may produce poisoning, cause death by respiratory failure. Overdoses of barbiturates affect the secretion of urine directly through the circulation, causing an oliguria and anuria. Since urine is the most important avenue for the excretion of these drugs, an anuria delays recovery.

Those destroyed by the liver are the short acting barbiturates. It is known that individuals with impaired hepatic function have remained deeply anesthetized for long periods of time from a hypnotic dose of evipal, which in a normal person would cause an anesthesia for only fifteen minutes. Consequently we are warned that barbiturates which depend upon the rapid destruction by the liver for their short action, should not be given to individuals with hepatic disease. Barbiturates should not be given in carbon tetrachloride poisoning, as this solvent itself damages the organ and it is adding insult to injury in this case because an impaired liver is unable to detoxify these drugs as efficiently as when normal.

The therapeutic dose does not cause death, but when fifteen times the ordinary hypnotic dose has been absorbed, the patient's life is in danger. In acute barbital poisoning, nothing characteristic is seen grossly at the postmortem.—William D. McNally, M.D., Chicago, Jour. Mich. S.M.S., Vol. 41, No. 8, August, 1942.

A Brief Historical Sketch of Epilepsy

JOSEPH L. FETTERMAN, M.D.

WHEN one undertakes an historical survey of epilepsy, he becomes conscious of two different mental attitudes. A study of the ancient practices gives the modern reader a sense of superiority, but if one appraises the defects in the present knowledge and looks at the possible developments of the future, he must feel a sense of inferiority. Furthermore, a review of the history of epilepsy reveals the fact that the growth of knowledge of a single disease does not take place separately and apart from the advancement of culture and science generally. Indeed, the understanding of one malady advances as does that of the other subjects of medicine and even of general scientific knowledge, much as the movements of ships in a convoy. One boat may be far behind, yet all the ships move in adjacent areas. Whatever confusion and superstitions surround epilepsy were, for a time at least, true of other maladies. So too, the recent rapid advances in the science of epilepsy are concurrent with the progress of medical science generally.

From the earliest days to the present, epilepsy has startled and baffled mankind. Its dramatic features have vividly impressed those who witnessed attacks. Primitive man and even the learned of ancient days sought to find an explanation for the sudden occurrence of an attack of unconsciousness. A person suddenly falls to the ground and shakes violently for no apparent reason. An available explanation was forthcoming in the superstitions and in the religious beliefs of primitive man and the medical minds of ancient days. The afflicted person must be possessed by some demon, or he is the victim of a spell which has been cast upon him by the gods. The name of this malady in the ancient days reflects this interpretation. Then the ailment was known as morbus sacer (sacred disease), or morbus divinus. Another term was morbus Hercules, based on the belief that this god "could bring on such soul-racking visitations". Among the Romans, this disease was sometimes called morbus comitialis, a term which had reference to the meetings of the Roman senate. It was thought that if some member of the senate or a visitor had a convulsion, such an attack was not a disease symptom, but an omen of evil portent from the gods. If someone had an attack, the senate was at once dismissed.

The Author

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Epilepsy had previously been described in the Babylonian code of Hammurabi, written in 2080 B. C., and in the ancient Talmudic writings. The descriptions of the attacks were vivid, but the causes were related to punishment for misconduct. Persons were warned about certain deeds lest they become epileptic. The clearest understanding of epilepsy in ancient days is that of Hippocrates. With clinical experience, keen logic, and apparently experimental work, Hippocrates gave the first accurate interpretation of epilepsy: "This ailment appears to me to be in no way more divine nor more sacred than other diseases, but has a natural cause from which it originates like other affections. . . . This illness is referred to the gods by conjurers, purefactors, mountebanks, and charlatans . . . but if you cut open the brain, you find the cause of the trouble. It is not God but disease which injures the brain."

Penfield and Erickson, in Chapter I of their recent book on epilepsy, refer to the dissections made by Hippocrates on the brain of the goat, in which he found that "the fluid around the brain was swollen and of an evil odor". They go on to say: "Our admiration for Hippocrates is not dimmed by the fact that it was probably the goat that smelled and not the brain, and that the fluid may have been cerebrospinal fluid".

Hippocrates' views were obscured by prevailing superstitions and by the lack of anatomic and physiologic knowledge of his time. For, in those days, many physicians and philosophers believed that the heart or the liver might be the seat of consciousness and that the brain had something to do with breathing. Though progress in the understanding of epilepsy was slow, the descriptions of this disease were fairly accurate, as may be judged from the following dramatic portrayal written by the poet, Lucretius, in 95 B.C.:

"Oft too some wretch, before our startled sight,
Struck as with lightning, by some keen disease
Drops sudden:—by the dread attack o'erpowered
He foams, he groans, he trembles, and he faints;
Now rigid, now convulsed, his laboring lungs
Heave quick, and quivers each exhausted limb,

Submitted April 24, 1942.

Chairman's address, Institute on Epilepsy, under the auspices of the Auracraft Shop, delivered at Cleveland Health Museum, February 26, 1942.

Spread through the frame, so deep the dire disease
Perturbs his spirit: as the briny main
Foams through each wave beneath the tempest's
ire.

* * *

But when, at length, the morbid cause declines,
And the fermenting humors from the heart
Flow back—with staggering foot the man first
treads,
Led gradual on to intellect and strength."

In the early centuries A. D., the term, "aura", which means breeze or breath, was first used in connection with this disease. Writers had described the odd sensations which preceded an attack of unconsciousness. But it was Pelops, the teacher of Galen, who characterized aura as the beginning or possibly the cause of the attack. During the following centuries, there was little gain in the knowledge of epilepsy. Indeed, according to some writers, each succeeding century made poorer translations of Hippocrates. It was an Arabian doctor, Avicenna, admiringly referred to as Prince of Physicians, who first designated the name, epilepsy, for this disorder. Most writers accept the term, epilepsy, as representing the concept of a seizure of the victim by a demon. One writer offers another explanation. It is his opinion that the victim was seized by a constable and forcibly taken away from the community because of attacks. This theory of the name, epilepsy, would explain the unfortunate experience which a patient of our Lakeside Clinic had several years ago. This young man had an attack of epilepsy, with a fall and possibly brief convulsive movements. He got up spontaneously, walked in an unsteady zigzag gait, and talked in a thick, confused manner when he was met by a constable of the law. He was charged with drinking and taken to a station. The more stoutly he denied the charge, the more forcibly was he seized upon and brought to the jail. A card from the clinic and a statement of his attacks freed him.

TREATMENT

The "Dark Ages" may be looked upon as a prolonged blackout for the science of epilepsy. Patients were treated with every possible remedial measure in the hope that they might be freed from attacks. Among the odd remedies which were used is one recommended by Pliny, described as follows: "Crushed pigs' testicles in milk are sovereign against epilepsy". Another remedy of ancient days was a prescription of "the warm blood of a slain gladiator".

Epilepsy was first referred to as "falling sickness" in England about 1000 A. D. At this period treatments included cauterizing, venesection, and the wearing of a silver cramp ring. Cramp rings made of silver or of coffin nails were reputed to be cures against epilepsy. During these centuries epilepsy was thought to be a contagious disease. Mention was made that in Upper Alsace there was a home for epileptics adjacent to an isolation hospital. Talbot narrates several interesting modes of treatment that have been in vogue among certain peoples. "At Amoy in China, when some mischievous spirit has produced epilepsy by drawing the soul out of the body, definite means are taken to recover the absent soul. If the patient is a child, the mother rushes to the roof top and waves about in the air a bamboo pole to which one of the child's garments has been attached. While she is doing this, she several times calls the child by name and begs it 'to come back, to return home.' Another inmate of the house simultaneously bangs a gong to attract the attention of the lost soul to the familiar garment. Then the garment is placed beside the child so that the soul may slip back into the body."

Apparently this mode of treatment was used on the theory that an epileptic attack meant the escape of the soul from the body. In many primitive communities, however, epilepsy was attributed to demoniacal possession. In such cases, magic religious rites and sometimes force were employed to drive out the unwanted spirit. In modern India, sound thrashing of the patient with a sacred iron chain was resorted to as the most effective way of expelling the demon. The remedies for the falling sickness used in England in the fifteenth and sixteenth centuries included the gall of the ferret, foxglove, flowers of the lime tree, as well as the wearing of an emerald. Other methods of driving out evil spirits were used. Witch doctors, mechanically gifted, made openings in the skull. Many prehistoric skulls showed round openings which have been either scraped or sawed out as an avenue of escape for offending spirits.

Prayer was also used as a means of casting out the offending spirits believed responsible for epilepsy. Lennox's book contains a copy of a painting by Rubens which depicts St. Ignatius of Loyola in the act of casting out devils from a convulsing man and woman.

The light which came with the dawn of science during the Renaissance filtered into the dark recesses of epilepsy. Willis in England and Boerhaave in Holland wrote constructively about the symptoms and offered more scientific interpretations of this disease. Then, in the latter half of the nineteenth century, the progress of epilepsy kept apace with the spurt in medical science. Trousseau, Echevarria, Gowers, and particularly Jackson did much to further the knowledge of epilepsy. Jackson, following an earlier observation of Bravais, contributed a distinction between the ordinary form of epilepsy and that which occurs because of a focal lesion of the brain. This type of attack has since been known as Jacksonian epilepsy.

In 1853, the first remedy of any significance was introduced as a means of controlling seizures. Locock reported the use of bromides as valuable in reducing the number of attacks. And bromides remained popular until the second decade of the present century.

It is during our lifetime that the problem of epilepsy has been attacked with greater vigor and understanding. Practically every branch of medicine and surgery has made its contributions to the knowledge and treatment of this disease. X-rays have furnished direct visual evidence of skull fractures, of tumors, and of deformities responsible for attacks. Not only plain film but particularly the air encephalogram give a better visualization of the pathologic processes that may be the cause for attacks. The research in carbohydrate metabolism has contributed a clue to certain attacks. During the past decade, a series of psychologic tests have established the fact that some persons may go through life subject to many seizures and yet maintain a normal adjustment and good intellectual capacity.

In 1929 Berger first demonstrated the electrical waves emanating from the normal brain and a technique by which such waves may be enlarged and recorded. It was soon found that abnormalities in the rhythm of these waves occur in epilepsy. This observation has been the subject of extensive researches by Lennox and Gibbs, Davis, and others. Indeed, Lennox and his coworkers proposed the term, cerebral dysrhythmia, as an accurate and physiologic substitute for the name, epilepsy.

RECENT DIAGNOSTIC INTERPRETATIONS

Along with the recent diagnostic interpretations, new remedial measures have been developed. The surgery of epilepsy, advanced by the researches of Penfield, has proved valuable in certain specific instances. In 1912 Hauptman began the use of phenobarbital as a remedy against spells. This medication was superior to bromides and was the most popular remedy until the last few years. Then in 1938 Merritt and Putnam introduced dilantin sodium. And this medication has already established itself as the most effective anticonvulsant measure up to the present.

In addition to the advances in the medical approach, the recent decades have seen an improvement in the general social attitude towards the sufferer from this malady. Throughout the ages, the sufferer from epilepsy was set apart because he was thought to be possessed by some evil spirit or possibly endowed with some unusual power. It was known that certain famous characters in history were subject to seizures. Some writers mention Caesar, Mahomet, and Napoleon as examples of leading personalities who had attacks. And there is a long list of writers and statesmen who were believed to have epilepsy. This includes Dante, Richelieu, Byron, Beethoven, Moliere, and the famous Russian writer, Dostoievsky. Such personalities were distinguished despite their attacks. But the majority of epileptics have been feared, shunned, and neglected. Unfortunately the cause of attacks in some individuals is a serious brain defect, and such a defect is responsible for a low intelligence or a serious social maladjustment. This fact plus the horror of witnessing an attack and particularly the ancient beliefs about the cause of epilepsy have been responsible for mankind's neglect of these sufferers. This attitude is largely an historical hangover from ancient days. Today, however, there is a more enlightened attitude towards those who have epilepsy. The International League against Epilepsy is doing valuable work towards enlightenment. Its program is ably presented by Lennox in his book, "Science and Seizures."

In line with this new interest in epilepsy, there has been established in Cleveland a protected workshop in which previously idle and unemployable epileptics may obtain training, experience, and work. This program, the Auracraft Shop, though in its pioneer days, accepts epileptics as average men and women, handicapped by a disease, but yet capable of being useful. It is the aim of such a shop to utilize the abilities and not to emphasize the handicaps of the epileptic.

One may state that during the past forty years, the progress in the science of epilepsy has been greater than that during the preceding forty centuries. A better understanding, improvements in the mode of treatment, and a healthier social attitude toward epileptic persons have been developed.

One may conclude that the progress up to the present is far from the ideal goal of prevention and effective treatment. Further progress must be made. The past history of epilepsy gives us hope that further advances will be made.

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War And The Suprarenals

We are now segregating in military camps large numbers of men in the prime of life, doing all we can to train their physical powers to the highest level, and to cultivate in them a martial and combative spirit. This simply means that we are stimulating their suprarenal glands, and necessarily increasing the production of their androgenic hormones.—W. G. ichards, M.D., Billings, Mont.; Rocky Mountain Med. Jour., Vol. 39, No. 8, August, 1942.

A Pathologist Sees Colombia

WILLIAM McKEE GERMAN, M.D.

The Author

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IF you have a map of the western hemisphere at hand, get it out. You may be surprised to realize that Bogota, the capitol of Colombia, is directly south of New York City, nearer New York by some hundred miles than is our own San Francisco. Then, too, were you to cut out Colombia, and lay it over the eastern seaboard of the United States, you might be astonished to see that it covered most of it from Maine to Florida, reached over almost to Chicago and down to the gulf. Yet the most surprising fact about Colombia, it seems to me, is that, despite its nearness, it is less well known to "North Americans" than far away Argentina or Chili.

Colombia is a land of extremes; of climate, people and culture. Steaming equatorial jungles are cut by the towering Andes Mountains, snow capped as they pierce the clouds. Native women, barefoot, bent under almost concealing loads trot through Bogota's congested, old narrow streets beside other Colombian women, who could proudly be walking down New York's Fifth Avenue. Detroit's newest motor cars park next to laden donkeys. Bustling, modern cities like Bogota, Barranquilla, Cali, Medellin give way to primitive villages, where market day offers the only commercial and pleasurable excitement. Deluxe planes join cities by a few hours that are still days and weeks apart by land travel. Polished intellectuals support Bogota's distinctive pride—its astounding number of fine book stores, while savage Indians in primeval forests transfix exploring geologists with long, deadly arrows. Phases of medical practice and equipment as modern as "Medical Center" carry on with practically no professional trained nurses.

Colombia has hit (as before our entrance into war) a terrific pace of social progress, and all parts of the country cannot keep up. Or perhaps it would be more accurate to say that what is new, modern, merely overlays the old, as it has been for centuries, forming two levels of civilization that have not had time to merge. Colombia has literally jumped from mule-pack to the aeroplane in a single leap, since staggering transportation difficulties, and capital, either "frozen", or frivolously spent in Europe, had kept rail and automobile roads confined to short distances.

Social reforms came with as sudden a leap as transportation when the Liberal party came into power in 1930, soon brought in tax reforms, workmen's compensation, group insurance, compulsory holidays, "dismissal benefits", laws to protect Colombia's rich, scarcely tapped, natural resources from foreign exploitation, and measures to keep the country's wealth within its borders.

A true democratic spirit, however, has long flourished in this one time province of old Spain known as New Granada, renamed Colombia by its liberator, Simon Bolivar. In the Republic of Colombia, free speech and a free press is as much a fact as in the United States; and unlike the United States, politics is taken so seriously by the people that when congress is in session its proceedings are broadcast on the radio. In fact, the very stability of the Colombian government may explain the vague U. S. conception of that important, nearby country. It has always been such a good child in the tempestuous Latin-American family that it has not made the headlines.

Luckily, Colombia is a friendly neighbor to the United States. Luckily, since its strategic location almost bordering the Panama Canal, its largest airport less than two hours away, could make it a threat to our defenses were it as "neutral" as Argentina. And, until June, 1940, the air service in Colombia, one of the first commercial air lines in the world, was under German domination. It was then nationalized, its name changed from Scadta to Avianca, with its majority shares held by the Colombian government, its minority by Pan-American Airways. We can be grateful that American pilots now fly the air over Colombia instead of the Germans; and that Colombia is firmly determined that her many fine airports will not be made jumping off places for an attack on any part of the United States.

I was sent down to Bogota by the Division of Cultural Relations of the Department of State to conduct, in Spanish, a post-graduate course in pathologic anatomy and histopathology. We, the doctor, his wife and dog, left Cincinnati the first week in April, found on reaching Barranquilla,

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Note—One of a series of medical literary essays written at the request of the Editor.

Colombia's chief sea and air port that April had turned to August, and then the next morning, after two hours and forty minutes in the air, stepped out on the high plateau of Bogota into April again. In Bogota it kept on being a cool, green, beflowered April, even though June and July came as usual to Cincinnati, even though a map showed us almost straddling the equator.

Because of Colombia's nearness to the equator any given climate stays practically the same, and you go up or down to get a change. In Bogota, weather ceases to be a topic of conversation, but among strangers altitude and its varying effects on the individual replace it. At 8,600 feet you are ready to concede that you are, and probably would always be, obviously a stranger. I constantly woke up at night short of oxygen and after a few deep breaths to "catch-up", dropped off again into restless sleep.

However, a restful altitude and ideal temperature can be had for a three or four hour automobile ride "down". Even the upper class Bogotanos make a practice of going down every third or fourth week-end. Comfortable hotels with swimming pools have sprung up in many lower, nearby towns where it is warm enough for bananas, sugar cane, coffee—and hook worm to flourish, but moderate enough to attract people from the tropically hot coast cities. Opportunities for the trek down come frequently in Colombia, for fiesta days usually occur on Thursdays, and it's an "old Spanish custom" with students and faculty alike to "hacer la puente" (make the bridge) from Wednesday to the following Monday. Hospitality is also an old Spanish custom, so it happened that almost every week-end we were driven "down", and came back to the thin, invigorating air of Bogota laden with gardenias and orchids.

THE NATIONAL UNIVERSITY OF BOGOTA

In the energetic culture of a Capitol where politicians orate in poetry, the National University of Bogota plays an important role. It had its beginning in the latter half of the sixteenth century, and is one of the oldest universities in the new world. Through troublesome times and lean years it survived to emerge in 1935 by an act of congress as the national Ciudad Universitaria (University City).

As rapidly as funds are available, this new University is spreading over an enormous campus on the outskirts of Bogota. New buildings in "streamlined" modern design already house many of the departments; Veterinary Medicine; Law and Political Science, Architecture, Botanical Gardens; Dormitories. Of course, there is a stadium for track and football, though their football is not our variety—it is the Rugby kind. And there are basketball and tennis courts. I never cease to be amazed that these games can be played at that high altitude when just climbing to a seat in the stands makes me as short of breath as as old "cardiac".

The Medical School, the Department of Pharmacy and the School of Dentistry, still share a large building in the center of Bogota. Eventually the Medical School will have new quarters and new hospitals in the new Ciudad Universitaria. The Medical School has about one thousand students, far too many, when one remembers that few of our medical schools have five hundred. Indeed, there are far too many students for the present quarters and available equipment, even though much of the teaching is still theoretical and didactic.

Efforts to pattern instruction on the modern methods long used in the United States (subordination of the lecture to actual and practical work in the laboratory) are greatly handicapped by this disproportion between equipment and students. But indicative of Colombia's democratic spirit is the fact that limitation of students is opposed, while tuition fees follow a sliding scale based on the income of a student's family. The curriculum calls for seven years, including an internship or specialization.

Many of Colombia's good doctors have been trained in the various European medical centers; Berlin, Paris, Vienna, Madrid; and in our own schools. Those who have had their post-graduate work in Germany aren't advertising it these days, while those educated in the United States are gaining new respect. "He uses the American methods", now seems the highest recommendation, and proves that Colombian medicine is now looking eagerly to the United States for leadership.

When I say advertising, I mean just that, for, curious as it seems to ethically minded Americans, the front pages of the daily papers carry full ads run by local doctors. The quacks are almost run out of print by the reputable medicos who bid for patients like this: "Dr. Pablo Cortez, Cirujano y Partero especialista en Enfermedadas de la Mujer; Faculted de Bogota, Paris y Madrid, Horas de Visita—"

But no matter how excellent a doctor is, medical practice in Colombia has definite handicaps that limit his skill and usefulness. Number one is the lack of professionally trained nurses. To some of our temperamental prima donnas of the scalpel I should recommend the discipline of themselves setting up—just once—the operating room, and without surgical nurses, administer anesthesia and carry through an intricate major operation. And, if that isn't enough (no interns available) personally administer post-operative treatment to a very sick patient. You can imagine the complexities and the waste of time.

A small training school for nurses has now been set up largely through the efforts of the Colombian Red Cross; but it will be necessary to break down ancent Spanish tradition while glorifying the nursing profession, before the upper class intelligent, Colombian girl will stoop to service, which she and her family cannot differentiate from ordinary work done by servants. But Colombian girls are breaking away from the rigid, old customs that kept them secluded, and are entering the schools of law, engineering and medicine. So there is hope for nursing.

Handicap number two for medical practice is the anesthesia problem; in part, in the mountains due to the altitude, part to the lack of trained anesthetists. The diminished oxygen content of the air narrows the zone between safety and danger. Cyclopropane, chloroform and spinal anesthesia are popular varieties. Naturally, spinal anesthesia is often preferred, because a surgeon can give it himself, turn the patient over and begin to operate. The difficulty is that sometimes he doesn't finish before the anesthetic does, and that results in the discomfort of all concerned.

Handicap number three is peculiar to the high, cold climates of Colombia. Hospitals, like all buildings in Bogota, have no central heating, and in an operating room the patient must be piled high with blankets. But from available information, the incidence of post-operative pneumonia did not seem to compare unfavorably with our own.

If you're wondering how the surgeon stands the cold, don't imagine that he is stripped down into our comfortable, operating room outfit. He takes off only his coat and vest. And then puts on a sweater before he pulls on his white operating room suit, his high, white rubber overshoes with canvas legs. When doing autopsies I was glad to do likewise, though I felt like an aviator about to ascend to the stratosphere.

Whatever the difficulties, there is a pleasant side to hospital work in Colombia, because every performance must be punctuated with a "tinto". A tinto is a small black coffee with lots of sugar—if you like sugar, and all day long in Colombia it is the lubrication that moves the social and commercial wheels of progress. A business man may have no office except the coffee house table. A surgeon must have his "tinto" before and after he operates. The jingle of a little bell brings a small, decorous, uniformed Pablo with a tray of coffee cups. I feel there is much to be said for the custom; and Colombian coffee, though tasty and very black, is never strong.

TROPICAL DISEASE

Just as Colombia has every kind of climate from hot jungle to high cold table-land, it has every kind of disease that goes with those climates. The Colombian physician must be familiar with all the diseases that we have here and, in addition, he must know all the strange tropical diseases that we never see.

Deep in some of the Andes valleys lurks the dread Oroya fever, known to them as Verruga Peruana,—a strange disease with high mortality and two phases; an acute febrile and a chronic eruptive phase—if the victim survives the former. It is one of the few human diseases in which the parasites can be found in the red blood cells,—the Bartonella bacilliformis. The Institute of Hygiene is studying this disease, its bacteriology and pathology, in monkeys.

Leprosy is common. In Bogota a large building of ultra modern architecture houses the Instituto de la Lepra. Its equipment and laboratories on the inside are just as modern. Here studies are under way on the bacteriology of Leprosy—the identification of acid fast bacilli isolated from fleas, suggesting the possible role played by this insect in the transmission of the disease. Experimental lesions produced in indigenous and imported monkeys, as well as material from human cases gave me a treat that I never had before.

The mere fact that there is a leprosy institute in Bogota reflects their rational attitude towards a disease of such low communicability. In contrast, the emotional frenzy of the American people is so great that when an isolated case turns up in one of our medical schools, he must be whisked off to some isolated leper colony before he can be studied.

Another first for me was a case of typhus. Early one morning I was summoned by phone to the Hospital San Juan de Dios. I found the small autopsy amphitheatre well filled with students and faculty, and Dr. Sanchez, trained at Harvard, already at work on the body. I was asked to take a hand, and I did to the extent of examining the viscera, as he withdrew them.

The body was that of a poor mestizo from the fringe of Bogota. After several days of a high, typhoid type fever, and a pronounced eruption, his left leg became thrombosed and gangrenous to the hip. Thrombotic and hemorrhagic phenomena were visible everywhere. Although flea borne and supposedly endemic typhus, this case had all the violence, and all the findings of the severe epidemic type. One wonders, if after all, the difference between the two is not more academic than practical. This was the first case of a small epidemic that caused a stir in the public health department.

The flea is everywhere, even in high Bogota, and a ride in a street car or an evening at the movies must be paid for in flea bites. Intestinal parasites are no less a hazard, and the prevalence of amebic and bacillary dysentery in some localities make the eating of uncooked vegetables, and the drinking of unboiled milk and water taboo. An autopsy done on a child of the poorer classes will almost always reveal one or more varieties of parasites.

Fleas, intestinal parasites and mosquitos are (we hope), Colombia's worst enemies.

In the lowlands, malaria is the constant plague, often the malignant tertian form. The Institute of Hygiene devotes a building to the large scale manufacture of totaquina for the control of this disease, Totaquina, containing all the alkaloids of cinchona bark, is more easily and cheaply made and is deemed quite as effective as the purified quinine.

In the jungles, yellow fever is an added threat, now known to be carried also by the jungle mosquito, Hemagogus, and probably by several other varieties of this insect. The experimental work of the Rockefeller Foundation of Colombia has completely changed the concept of yellow fever. And no longer is it thought that the human has a monoply on this disease. Rather it is, basically, a jungle, animal virus, and man only gets it inadvertently. Virus testing and virus neutralization experiments have shown that most of the jungle animals can serve as a reservoir, and as it is hopeless to attempt to control this reservoir, the present emphasis is on individual vaccine prophylaxis.

In Bogota on Calle 55, stands a large white stone building. Over its door reads Ministerio de Trabajo y Prevision Social. Seccion de Estudios Especiales. This is the Rockefeller Foundation. My old friend Dr. John Bugher, formerly of the Department of Pathology of the University of Michigan, is its energetic chief. Here is the center of Colombian Yellow Fever control; and they're doing an efficient job of it. Here one lines up for his yellow fever "shot". Here on a large scale is produced yellow fever vaccine from virus propagated in chick embryos. Here is the largest mouse colony in the world turning out four thousand mice a week for their virus testing and neutralization experiments. Here arrive daily from all over Colombia liver specimens from suspected yellow fever deaths.

A law requires that a viscerotomy be done on every acute febrile death of less than ten days duration. A special instrument, a visceratome, makes this simple. Plunged through the abdominal wall, into the liver, with cutting blades, it removes a specimen of a size suitable for histopathology.

I am happy to say that I became quite adept at recognizing Councilman bodies.

The actual experimental work on animals and mosquitoes goes on at the Rockfeller field laboratories near Villavicencio, a town far down over the eastern cordillera on the edge of the jungle. A constant watch it kept on such villages, since there is danger of the jungle virus seeping out into the towns to be taken up by the better known domicile mosquito, aedes aegypti, the process by which a "bang up" urban epidemic is caused.

Just a word about the troubles of Veterinary Medicine in Colombia. In some districts there flourishes a curious brand of Rabies. It appears in pack mules and burros, rarely in men or dogs and is transmitted by large vampire bats.

The natives prefer to do nothing about it, believing that the bats decimate the malaria carrying mosquitoes. As a matter of fact, they don't, but prefer a diet of fresh blood and ripe bananas. It is common for pack animals, bled out during the night, to stagger and fall under their load the next day.

Chickens roosting in the trees to avoid their rodent enemies on the ground become the victims of these bats. Their toes offer ideal bleeding sites, and by morning the birds are found on the ground so bloodless that they can no longer stand. Hogs, eating the carcasses of bats dead of the virus, succumb to rabies. This type of rabies offers a challenging and little studied problem.

My own work proved fascinating. My class was a small group of interested and enthusiastic doctors, all eager for specialized training in pathologic anatomy. Pathologic anatomy and histopathology are much needed in Colombia and at the present time there are but two qualified pathologists in the whole country. A small group of fifteen students with common interests lends itself to informality. Beore the end of the course, we become very well acquainted and great friends. They gave me a banquet which I shall always remember. They also came in a body to the airport at six o'clock in the morning to see us off in the plane. I know that you and I would have to think very highly of one to get up at that hour in the morning.

The Colombians have a very practical attitude toward "Cultural Relations". Quite sensibly they say "No lasting benefit can come from a few dignitaries who, for a few days, make speeches and talk good will. We should like you North Americans to come and work with us, and we South Americans would like to come to the United States and work with you. In this way only can we understand each other and our problems".

Colombia has not been free from Nazi infiltration. At least, Germans have been quietly at work there for years, monopolizing various fields, especially radio equipment, pharmaceuticals, and photographic supplies. The famous "black list" descended on Colombia while we were there, and was going to affect many of Bogota's commercial firms. However successful the Germans work may have been, and that, perhaps, remains to be seen, it is certain that popular sympathy in Colombia is overwhelmingly with the Allied Nations.

Acute Adrenal Cortical Insufficiency*

THOMAS C. LAIPPLY, M.D.

A WHITE woman, 73 years old, was admitted to Lakeside Hospital with a chief complaint of vomiting. She had been in good health until four days prior to admission. At this time she first noticed anorexia and nausea. On the day before she was admitted to the hospital she began to vomit all food and fluid ingested. During the 24 hours preceding hospitalization she became drowsy and slightly irrational.

Physical examination—at the time of admission: Temperature 38.7, pulse 110, respirations 26, blood pressure 100/68. She was an underdeveloped, poorly nourished, slightly dehydrated, elderly woman appearing acutely but not critically ill. The pharynx was markedly injected. Both tonsils were covered with yellowish-gray exudate and there was superficial ulceration of the left. There were no other noteworthy positive physical findings. The neck was not stiff and a positive Babinski sign could not be elicited. All reflexes were equally sluggish but present.

Laboratory findings—on the day of admission: Urine (catheterized)—specific gravity 1.018, albumin negative, sugar negative, acetone 1 plus, a few white blood cells and granular casts. Blood—16,000 WBC, 3.74 M. RBC, 70 per cent Hgb., normal differential, negative Kline exclusion test, BUN 36 mg. per 100 cc., whole blood chlorides 449 mg. per 100 cc. or 77.0 milliequivalents, blood culture negative. Throat culture—Beta hemolytic Streptococci isolated.

Hospital course: Three hours after hospitalization the patient's blood pressure fell to 60/30 and the pulse rate rose to 150. At this time she became comatose. The blood pressure was restored to and kept at the admission level by the continuous administration of intravenous fluids, acacia and ephedrine. The patient, however, never regained consciousness. Her temperature gradually increased to 40.5° C., where it remained. Beause of increasing stiffness of her neck a lumbar puncture was done on her second hospital day. This revealed no noteworthy abnormality. On the same day, 30 hours after admission to the hospital, her blood pressure again began to fall. The amount of fluid given intravenously was increased; ephedrine, caffeine and other stimulants were given but her blood pressure continued to fall and the patient died 34 hours after admission to the hospital which was approximately six days after the onset of her illness.

The most significant autosy finding was active conglomerate tuberculosis with almost complete destruction of both adrenal glands. Associated with this was slight brown pigmentation of skin of neck and face. There was also acute pharyngitis and tonsillitis and bilateral bronchopneumonia.

COMMENT

Clinically the acute pharyngitis and tonsillitis were obvious. The cause of the coma and shock was, however, not clear. Diabetic coma was excluded because of the absence of sugar in the urine. Insulin shock was ruled out because there was no history of diabetes or insulin administration. The essentially normal urinary findings and relatively normal BUN were not in keeping with uremia. Coma due to overwhelming infection with septicemia seemed unlikely with the negative blood culture. The normal spinal fluid findings were against coma due to encephalitis, meningitis and subarachnoid hemorrhage. Shock due to a ruptured abdominal viscus or mesenteric thrombosis seemed very unlikely in the absence of abdominal pain. Subdural or intracerebral hemorrhage was a likely possibility but the absence of localizing signs was a disturbing factor. Addison's disease was considered but seemed to be unlikely because of the acute onset of the of the illness and the absence of what was thought to be significant pigmentation of the skin. The report of the blood chloride level was not available before death.

In 1885, Thomas Addison first described the syndrome of adrenal cortical insufficiency. As seen in Addison's disease this symptom complex is characterized by an insidious onset, the progressive development of fatigability, asthenia, anorexia, nausea, vomiting, and occasionally abdominal pain and diarrhea. The symptoms usually appear over the course of weeks, months or even years. Occasionally, however, the rate of appearance of the symptoms and course of the disease may be greatly accelerated. This may occur during the natural course of the disease, in response to a withdrawal of sodium salts from the diet, or in association with an acute infection. In such instances the disease may terminate fatally in a few days.

In this case the recent upper respiratory infection associated with nausea, vomiting and later shock, might have given a clue to adrenal damage. Loeb* points out that in spite of almost complete destruction of the adrenals there may be sufficient tissue to meet ordinary bodily requirements. With the onset of a severe infection, however, there is not enough adrenal reserve and symptoms of adrenal insufficiency may supervene suddenly. In this patient it is obvious from clinical and autopsy data that the upper respiratory infection precipitated acute adrenal cortical insufficiency. Had the infection not supervened, she might have lived to develop the typical signs and symptoms of Addison's disease. The skin pigmentation was slight and easily overlooked during life.

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*Selected by H. T. Karsner from the Clinical-Pathological Conferences at the Institute of Pathology, Western Reserve University and University Hospitals as the eleventh of a series of cases to be published under the heading "Case Records Presenting Clinical Problems".

*Loeb, R. F.: Addison's Disease; Adrenal Cortex Insufficiency. J.A.M.A., 116:2495, 1941.

In such cases of acute adrenal cortical insufficiency adrenal cortical extract may produce dramatic improvement. The administration of this substance should be supplemented by one or two daily infusions of 1500 cc. of normal saline.

SUMMARY

This case was one of a 73 year old white woman with an acute upper respiratory infection who suddenly went into shock and became comatose. The underlying disease was obscure until autopsy revealed conglomerate tuberculosis with almost complete destruction of the adrenal glands. Correlation of clinical and pathological findings indicated an acute adrenal crisis precipitated by an acute infection. Thus, in patients with unexplained shock and coma, particularly in association with acute infections, the possibility of acute adrenal cortical insufficiency should be considered.

Recent Advances in Chemistry

A chocolate flavored syrup of germs, that according to preliminary tests, enable human beings to eat grass, leaves and wood if other supplies fail was announced by Dr. Gustav J. Martin of the Warner Institute for therapeutic research, New York City. The germ syrup which would accomplish the desired result for a lifetime at a cost of $2.00 per person, is considered particularly suitable for paratroops and other army units. It seems that this is the American Research scientists answer to reports that the Germans have developed a similar procedure for enabling their soldiers to live on wood, leaves or grass.

For civilians as well as soldiers, to supply vitamins for a lifetime is also on the way if Dr. Martin's experiments prove successful. Certain bacteria, or germs, of a type that do not cause disease are known to manufacture various of the B vitamins. The cow does not have to eat B vitamins in food because her rumen contains the bacteria to manufacture them. Dr. Martin's experiments are designed to develop similar germ vitamin factories in man's intestines. Dr. Martin's work on developing germ vitamin factories and the chocolate-flavored germ syrup for digesting grass, leaves and wood, has been done on laboratory animals. Preliminary tests on humans have been started in New York Hospitals, but have not gone long enough for conclusive results to be reported.

The idea or creating germ vitamin factories in man's body to make him independent of food sources of vitamins or even vitamin pills resulted from the discovery that one of the B vitamins, pantothenic acid, can stimulate the growth of these intestinal tract germs which synthesize another B vitamin, inosital. In past experiments when pantothenic acid was left out of the diet, the symptoms that resulted, such as graying hair, and hemmorrhage of the adrenal glands and so on, were attributed to the lack of pantothenic acid, but because there was no pantothenic acid in the diet, there was also an unsuspected deficiency of inositol. It was this suspected lack of inositol that was responsible for some of the symptoms attributed to lack of pantothenic acid. Graying of the hair, Dr. Martin reported, is actually due to pantothenic acid deficiency and inositol will not cure the condition. The adrenal hemorrhages, however, are due to the inositol deficiency. Lack of pantothenic acid, Dr. Martin pointed out, is not the only dietary lack which will produce gray hair. Restoring hair color lost through lack of pantothenic acid, may be accomplished by restoring pantothenic acid to the diet. Hair color may also be restored, as has previously been reported by doses of another vitamin para-aminobenzoic acid. This vitamin acts to "cure" gray hair, Dr. Martin is now convinced, through its action on bacteria in the intestinal tract.—Abstract by Harry Iker, Chicago, Illinois.

Angioid Streaks in the Retina

Examination of a white man, aged thirty-five, who complained of blurry vision showed two small hemorrhages directly in the macular area of the right eye and in the extreme periphery of the fundus several small areas of old choroidal atrophy were noticed. The most significant finding was the typical angioid streaks scattered throughout the posterior half of the fundus particularly around the nerve head and macula. The fundus of the left eye was found to be almost identical in appearance except that there were no macular hemorrhages present. The vision with this eye was found to be 20/20. General physical examination revealed a definite bronchiectasis in the lower lobe of the right lung. No skin lesions were noticed and there was no clinical or laboratory evidence of Paget's disease.

In the literature there has been no previous case report in which angioid streaks of the retina was associated with bronchiectasis. In the author's case this association may have been coincidental but it is entirely possible that the bronchiectasis is due to the same pathological derangement as are the angioid streaks, namely, a degenerative process involving elastic connective tissue. All cases therefore of pseudoxanthoma elasticum, Paget's disease, and bronchiectasis should have a complete ophthalmoscopic examination.—Edmond L. Cooper, M.D., Detroit; Jour. Mich. S.M.S., Vol. 41, No. 7, July, 1942.

Current Thinking in the Field of Nutrition*

JONATHAN FORMAN, M.D.

WHEN we come to realize the marked increase in yield that the eroded soils of our country do produce once they are reclaimed by our Soil Conservation Service; the possibilities of intensified human effort through properly balanced soil ingredients; the fact that in a war of attrition "food will win the war and food will write the peace", we see that soil conservation and good nutrition are linked together as our major line of defense.

The movement to secure a state of good nutrition for all of our citizens has made great headway under the impulse of the defense activities and more recently of the war itself. Many agencies are emphasizing the selection of foodstuffs, the writing of menus, and the proper preparation of foods to strengthen not only our armed forces and those of our allies, but also the arms of the civilian population. It, however, was a source of great satisfaction to the writer to see that in the two recent meetings, both of national significance, whose spirit we are trying to catch on this page, the emphasis was placed on the quality of the food and the factors which determine it. In both these meetings it was clearly brought out that good nutrition depends upon good animal and plant life and that this in turn depends upon a fertile soil. While great improvements have resulted in our crops from hybrid breeding, Nature cannot be hijacked by bandit horticulturists—those who introduce new plants or new strains of plants capable of old-time growth in soils depleted of their vital substances. Such efforts often deceive even the wise in that more tonnage is produced at the expense of the quality. Thus are farm animals turned into "hay-balers" instead of being fed into stronger, larger, better livestock. The hidden hungers in plants first and then in animals, both wild and domestic, are due to modern deficiencies in the soil through a hundred years of unwise cultivation. These in turn are the basis of the "hidden hungers" of man. Much has already been learned about the relationship of fertile soil to the production of foodstuffs rich in vitamins. This all in addition to almost daily findings now that the so-called "trace minerals" are essential to the health of plant, animal and man.

All of this is being carried over into the field of Medicine. It is being shown that not only are these minerals and vitamins the determinates of childhood growth and development but they are also the determinates of human behavior. One of the most interesting observations along this line is the great number of cystic pituitaries found in young farm animals kept for four months on a diet deficient in Vitamin A. The sad note about these observations is that when fed again a diet rich in Vitamin A they recovered from the disease but they did not grow and reproduce normally. Thus the injurious effect of ration supplied for only a few months to growing livestock was apparently permanent, since there was no evidence of repair after the animals were restored to an adequate diet. Thus an endocrine disturbance, cystic disease of the pituitary, is related etiologically rather definitely to an early dietary deficiency. There is an ever increasing amount of evidence that the vitamin content of our food is likewise related to the nutrient quality of the soil and the action of its minerals in promoting plant growth.

Recent experiments show that cancer-bearing mice do not develop their cancers if they are kept on a low caloric diet rich in all the essential vitamins and minerals. We are all familiar with the fact that butter yellow is carcinogenic for the liver of rats if the animal is deprived of casein and riboflavin. Thus do we get our first glimpse that possibly some forms of cancer may be related to what we eat.

So more and more it becomes clear that good health depends upon good food properly prepared, good digestion, and good body tone. It is likewise clear that good foods, be they meat or vegetables, can only come from good soil. Soil can only maintain its fertility if it is properly husbanded. The leaders in both these meetings had the vision—the vision of redemption, of land reclaimed, of a civilization saved. So we are taking our social problems back where they belong and are interpreting them in terms of nutrition. At the same time we are measuring our health and our nutrition in terms of the soil as the basis of all constructive conservation. Whether our interests be the conservation of our youth, our domestic animals, our wild life, our fish, our fields, or our forests, it all goes back to wisely managing and conserving for useful purposes the nutrients in the soil.

Even the dead cities of Syria point mutely back to the soil as the basis of civilization and culture. There in those ruins, the olive and wine presses and the great bins all bespeak of a land once bounteous, now quiet in death, imperishably so since the soil has been washed away to the rock. From North China, North Africa, Trans-Jordan and elsewhere in the world comes the same story. We here in Ohio are not so far from becoming a desert as we may think.

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*An attempt on the part of the Editor to interpret the spirit of two recent meetings in which he took a part, i.e., The Conference on Conservation, Health and Nutrition held in connection with the Ohio Conservation Laboratory for Teachers at Tar Hollow Camp in the Ross-Hocking State Forest and the midsummer field meetings of the Friends of the Land held at St. Louis, Missouri.

All of our efforts will be in vain if we do not keep the rain drops in our soil. Nature gives us an abundance of water but we have wasted it by ditching, draining, and bad farming practices. This is not nearly as much a farmer's problem as it is one for us city folks. Here in Ohio we get an annual rainfall of 37.97 inches. This is computed to mean 27,228,271,351,673 gallons per year for the entire state. About 11.55 inches of our rainfall is runoff, about 15 inches per year is used as soil moisture for growing the plants of which we have been writing. A little over 11 inches of our annual rainfall goes into the deeper parts of the earth as *ground water*. It is this water that supplies our wells and maintains the flow of our streams. This determines our so-called water, i,e., the level at which the water stands in the well. A partial survey shows that in 60 places in Ohio, rather well distributed, this water table has receded on the average of a foot a year for the last 20 years.

This means that unless something is done about it, our mills and plants will have to close down one of these days in the not too distant future for the lack of water. If, however, we would conserve our runoff water the farm land could be redeemed, and the water table pushed up to the point where there would be no longer any danger of a desert or of deserted cities.

In all our plans to make America a better place in which to live and to keep it so, the nutritional state of our people stands out as the most important problem and it is now becoming clear that this problem in turn is tied up with the redemption of our lands.

The development of child health activities has had a close relationship to questions of national welfare and defense. While unthinkingly we are apt to look upon them as something based entirely upon humanitarian motives, the truth is quite otherwise.

If I were to venture certain prophecies today, the one I feel most certain of is that the present emergency, whatever its outcome, will lead to the acceptance of more responsibility for the child on the part of the government, and a more intensive development of child health activities on the part of the state.

All this sums up to the simple fact that a sound healthy youth is the most vital factor in national defense, and whether our youth is sound depends upon their physical, mental and emotional development during childhood.—Borden S. Veeder, M.D., St. Louis; Jour. Mich. S.M.S., Vol. 41, No. 8, August, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

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INDUSTRIAL HEALTH

The recent reformation which has taken place in the health and life of the industrial worker in Britain is one of the most impressive and remarkable chapters in the progress of preventive medicine. It records a development from disorder, neglect and confusion to regularity and discipline, and from arbitrary mismanagement to scientific planning. It has become physiological, social and personal in objective. This is of national importance, for it affects five or six million men and women workers in the factories, and twenty million workers outside them. It sets a standard for all employment, and crystallizes British conceptions and traditions. It is perhaps the most popular of all public methods of preventive medicine, and has in it the elements of a liberal education. It improves and fortifies the individual health of the workman—his only capital—increasing his dividend, lengthening his life and enlarging his opportunity and personality. It affects the whole man—his habits and character, his domestic life, his family and his home as well as his workplace. It is a great school of citizenship and health education of body, mind and spirit.

The worker himself, and not his factory environment, is the vital factor. His fitness, capacity, endurance and willpower are the chief requirements in order to prevent that overstrain, fatigue and disharmony which may be the precursor of disease. This is the center of gravity.—Sir George Newman, Britain Today, Feb., 1942.

THE TUBERCULOUS IN INDUSTRY

For years the after-care attention meted out to post-sanatorium cases has been the *Cinderella of the Tuberculosis Service*. This has been due to a variety of reasons. In the main, the results were less spectacular than those of the operating theatre and hence never achieved the same popularity in the lay mind; and again with a floating peacetime unemployed population of about three million, healthy labor was at a premium.

Information about tuberculosis disease or previous treatment at a sanatorium or dispensary should be made compulsory for all persons entering industry. This is the practice at military boards and there appears no legitimate reason why this should not be incorporated into the civilian industrial life of the country. Such a measure would ensure the control of infection in the interests of the health of the community. Naturally, such a course will occasion opposition. It will be argued that this represents an encroachment on the freedom of the individual; however, freedom would be an intolerable institution if it permitted an individual indiscriminately to infect with disease his fellow creatures.

An extremely strong case can be made out in view of the recent extension of the defense orders making the treatment of scabies compulsory in the interests of national health. The extension of such a defense regulation to incorporate tuberculosis should prove a relatively simple legal measure.—Bertram Mann, M.B., Tubercle, March, 1942.

MASS RADIOSCOPY IN FACTORIES

Much has been written lately concerning the value of mass radiography of the chest, and reports, among others, of investigations into the pulmonary pathology of Australian recruits, British sailors and University College Hospital students are available, but so far little has been done in this country with the ordinary unselected civilian population. Anyone who has felt the urge to conduct such an examination must at once have become conscious of the many difficulties, of which lack of suitable apparatus and the reluctance of the population to submit to examination are the chief. Nevertheless, few of us doubt that these difficulties will soon be overcome.

X-ray screening of the chest was offered to the work-people in two factories, the management allowing this to be done in working hours. In the first, 60 per cent and in the second, 97 per cent came for examination. Of 575 people examined in the first factory, three were found to be tuberculous. Of 795 examined at the second factory, two were known to have phthisis and two others were found to have active disease.—A. Stephen Hall, M.B., The Lancet, Feb. 7, 1942.

WEEDING OUT TUBERCULOSIS

Commenting on the above article by Dr. A. Stephen Hall, a later issue of The Lancet states in an editorial:

"In each factory about 0.5 per cent of the workers had clinically significant tuberculosis. This percentage is lower than that found in similar mass surveys elsewhere, a common figure being between one and two per cent. The question therefore arises whether the examiner sees as much and as truly on the fluorescent screen as on the developed film.

"In this welter of instrumental aid when employers and employees alike have been led to expect surveys which will 'wipe out tuberculosis' it may be well to add a cautionary word. No diagnosis is ever made on a fluorogram; any doubtful or abnormal finding calls first for a full-size radiogram and, should the abnormality be confirmed, a thorough physical overhaul. If the whole method is not to be discredited, and if hardship and misery from faulty diagnoses are to be eliminated, as much thought must be given to the training of personnel as to the choice of apparatus.

"If a worker submits voluntarily to examination he will naturally ask that he and his family are not to suffer financially while undergoing treatment for what, in his opinion, might have healed at work. Tuberculosis is coming to be regarded more and more as a disease of economics."—Editorial, The Lancet, March 21, 1942.

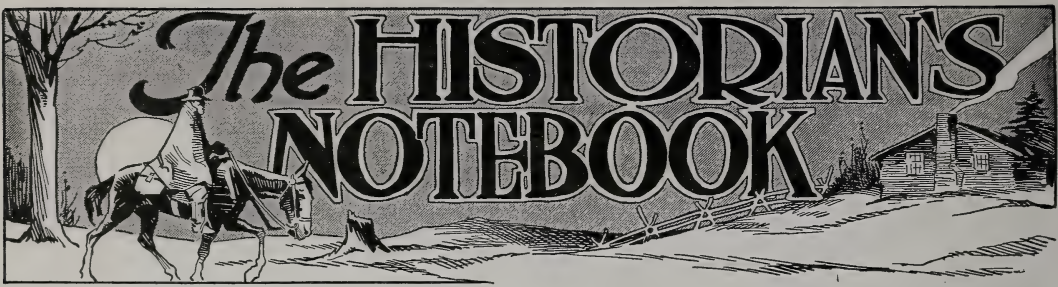
We must keep well in mind that tuberculosis is a poor man's disease. It kills seven times as many per hundred thousand among unskilled workers as among the higher paid individuals. It strikes those least prepared to take the blow. That fact in itself is sufficient to make it imperative that the cost come out of the sources other than the victim's meager income. If we expect to finance the war (against tuberculosis) out of the pockets of those found to be suffering from the disease we may as well hoist the white flag. The war cannot be won that way. The public health is the public trust and responsibility and doubly so when the danger comes from a communicable disease.—Matthew Woll, Penna's. Health., February, 1942.

The Serologic Diagnosis of Syphilis

The studies of the comparative merits of the various serodiagnostic methods for syphilis as carried out by the Health Organization of the League of Nations and by the Serologic Evaluation Committee of the United States Public Health Service are reviewed. The extension of similar methods of study to the work of various state, municipal, hospital, and private laboratories showed marked discrepancies in the results of many of these laboratories when their results were compared with those obtained by the originators of the tests employed by these laboratories. For the past five years the work of the state laboratories has been evaluated annually, and there has been a steady improvement in their performance of serodiagnostic tests.

The incidence of biologic false positive reactions in other diseases is from one in 2,000 tests to one in 5,000. The proportional frequency with which positive reactions are to be expected in the various stages of syphilis is 35 to 50 per cent in primary, 100 per cent in secondary and varies widely in later stages.

The significance of the positive cord blood is admitted to be not dependable and the importance of carefully following the increase or decrease in the reagin titre of the new-born blood is emphasized.—F. E. Senear, M.D., Chicago; Jour. Mich. S.M.S., Vol. 41, No. 7, July, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A Pioneer Doctor of Geauga County

"HERE was a man sprung from the common people, who never achieved any measure of what is called success, was not greatly learned, performed no striking action, accumulated no wealth, made no discoveries in art or science, endowed no college or hospital, founded no sect or new order, belonged to no church, was a member of no association, filled no official position, was not in the war of the Rebellion, who died at the age of 65, and yet the people, his friends and neighbors, spontaneously erected a monument to his memory. There must have been much in the life worth living; something worthy of a record."*

An imposing white marble monument in the northeast part of the finely-kept rural cemetery a few rods west of the hamlet of Auburn Corners, marks the grave of Dr. Oliver W. Ludlow, a pioneer doctor who died August 2, 1865, after 22 years of active practice there, and five years in Newberry.

Outside of an ornamental fence, a few yards distant, on Route 422, now sweeps a continuous rapid traffic, the like of which this pioneer doctor never dreamed. He traveled on horseback over all kinds of roads, and his patients lived in log houses.

Of the thousands he brought into the world, few now remain. Of the unselfish, patriotic service he rendered the people in his territory in times of sickness and dire need, but few of the present generation there are aware of the facts; but printed history records the unbiased truth about Dr. Ludlow, and stamps him as a hero of pioneer days, whose name will be forever linked with the history of Auburn and Newbury.

He it was who knew of conditions in homes where he was called, and from his own meager store at home, he often divided with those made needy through sickness, and this among incidents of his life is treasured by many.

Dr. Ludlow was born in Seneca, Cayuga County, New York, January 1, 1800, the eldest son of Francis and Sally Coltron Ludlow. At 18 he taught his first school, and at 19 walked to Painesville, where he taught school several years. At 22 he went to Burton and studied medicine under Dr. Goodwin.

In 1824 he went to Chardon, took charge of an academical school, and became a student under Dr. Evert Denton, Chardon's first resident doctor. He spent several years in this school and study, and then went to New York City and entered as a student in the Academy of Medicine, and taught in a school to help pay his expense. In less than two years he graduated, and with his diploma returned to his wife (Harriet Metcalf) and infant daughter, awaiting him in Chardon.

He then removed to Newbury, fitted up a log house, engaged to teach the winter school, and held himself out to practice medicine. He undertook to teach school the second winter, but his increase of practice destroyed it.

The fourth winter in Newbury was pleasant and prosperous. His reputation was constantly widening, and in the hands of thrift the proceeds, though rarely realized in money, would have been considerable.

In slightly over a month during the prevalence of pneumonia, then called lung-fever, the aggregate charges were over $1,000, although prices were very low. Few men were equal to such labor.

In 1843, Dr. Ludlow removed to Auburn Corners, where he continued to practice his profession until the day of his death, August 2, 1865, driving his laborious rounds to the last, and visiting a large number of patients on the day preceding his death, which was very sudden and late in the evening.

In his charities, Dr. Ludlow was as wide as

Reprinted from Chardon, Ohio, Record, November 8, 1939.

*From a lengthy personal sketch of Dr. Oliver W. Ludlow by A. G. Riddle in the Lake-Geauga history of 1878.

his knowledge of men's need, and as free as his capacity to contribute. Nor did he hesitate to strip himself or family to supply them. A man came along one day quite barefooted, and the doctor not only provided him with food, but sent him on his way in his son Franklin's boots, although he had but a single pair.

One Autumn a young man in ill health came to the doctor's home, a weak, slender, helpless, homeless youth. He was taken in, cared for, nursed, cheered, tended, fed, clothed and loved. In spite of the doctor's skill he died at the end of the year.

The people of Auburn marked their just appreciation of Dr. Oliver Ludlow; but the example of his charity and benevolence, and his wide usefulness, will survive the marble with which they commemorated their estimate of him.

Freeport Physicians

The first physician of whom there is any record or tradition, to have settled in Freeport, was one Doctor Belknap, who came to Freeport (Harrison County) some time in the thirties. He is reputed to have been a brother of Secretary of War Belknap who served in Grant's first cabinet. He seems to have been a man of considerable ability and refinement. He founded the academy which was located just east of our present school building. He built a fine brick house on the site now occupied by the home of Mrs. D. M. Starkey. He had a separate office which was quite pretentious for that day, being about 12x24, divided into two rooms. The doctor planted a fine orchard on the lots near his home, which contained many types of fruit which were probably rarities in that day.

Sometime in the forties Dr. Belknap became dissatisfied and returned to the East. He was succeeded by Dr. Cook who practiced medicine in Freeport until about 1852, when he sold his home and practice to Dr. H. C. Black, who moved here from Antrim and followed his profession until the late nineties. He died in 1906. Sometime during the forties Dr. Hall located in Freeing there until his death some years later.

About 1865, Dr. J. S. Bailey came to Freeport, also his father, Dr. Jesse Bailey, a fine old Quaker. The young Dr. Bailey was a fine gentleman and a good doctor and had a good patronage until his accidental death in 1875. Dr. J. G. Howell located here about 1878, a young doctor just out of Medical college. He married Mary Knox and remained here until his death in 1908. —Excerpts from Freeport (Ohio) Press, August 21, 1941.

One pound of learning requires ten pounds of common sense to apply it.—Persian Proverb.

Let us respect gray hairs, especially our own. —J. P. Senn.

College of Surgeons Transfers Meeting to Cleveland

Originally scheduled to be held in Chicago during October, the 1942 clinical congress of the American College of Surgeons will be held in Cleveland, with headquarters at the Public Auditorium, November 17 through 20. The change in plans was made necessary because the Army Air Corps took over the hotel in Chicago which was to have served as headquarters for the meeting. The 25th annual Hospital Standardization Conference, sponsored by the College, will be held in Cleveland at the same time.

Main theme of the program will be medicine's role in the all-out war effort, with special emphasis on needs of the rapidly expanding Army and Navy medical services and problems of medical activity in civilian defense. It will include panel discussions, clinical conferences, medical motion pictures, and operative clinics and demonstrations at Cleveland hospitals and Western Reserve University School of Medicine. A large technical exhibit will be housed in the exhibit hall of the Auditorium.

Program headliners include: Surgeons General James C. Magee, of the Army, Ross T. McIntire, of the Navy, and Thomas Parran, of the United States Public Health Service; Lt. Col. George Baehr, chief medical officer of the OCD; Dr. Frank Lahey, directing board chairman of the Procurement and Assignment Service; Dr. Irvin Abell, the College's board of regents chairman and also chairman of the Health and Medical Committee of the Federal Security Agency; and Dr. W. Edward Gallie, Toronto, President of the College.

New Medical Service Plan Started

Sponsored by the Massachusetts Medical Society, the Bay State's newly formed medical service plan, known as Massachusetts Medical Service, Inc., has been formally launched. Immediate goal of its organizers, according to the *New England Journal of Medicine*, is enrollment of 100 per cent of the physicians of the state. It is hoped that this will have been accomplished in August and that contracts can be offered to the public by Labor Day.

After a study of medical service contracts in other states, the Massachusetts group decided to offer a limited-service contract at first but to plan for fuller coverage later as demand for it develops. The initial contract will cover hospital surgery, obstetrics, and diagnostic X-ray. Subscribers' income limits are set at $2000 annually for individuals and $2500 annually for families. Cash indemnity contracts will be offered to persons with higher incomes.

Recruiting of Medical Officers for Army To Be Continued In Ohio During September; Board Located At 74 East Gay Street, Columbus; Need Is Still Acute; State Expected To Provide Hundreds of Additional Officers by Jan. 1

RECRUITING of officers for the Army Medical Corps will continue on an intensified basis in Ohio during the month of September, according to announcements made concurrently by Colonel E. C. Jones, Surgeon, Fifth Service Command, Fort Hayes, Columbus, and Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Service for Physicians.

The Ohio Medical Officer Recruiting Board, headed by Captain C. E. Northrup, M. C., will maintain headquarters at 74 East Gay Street, Columbus, where physicians declared available for military service should interview the board, file applications for commissions, and be sworn into the service.

According to Colonel Jones, the need for medical officers for the Army still is acute. Colonel Jones stated that he has been advised by the Surgeon General's Office, Washington, that approximately 3,500 new medical officers per month for the remainder of the year, a total of about 14,000, will be required to provide adequate medical personnel for the Army.

"The great need is for physicians under the age of 37 who are qualified for full military duty," according to Colonel Jones.

NEED FOR YOUNG MEN URGENT

Commenting on this phase of the recruiting program, Dr. Conard, chairman of the Ohio Procurement and Assignment Committee, said:

"There are a considerable number of Ohio physicians in the younger age bracket who have taken no action as yet with respect to applying for a commission in either the Army or the Navy. This situation cannot be tolerated. Younger physicians must realize that for various reasons they are the ones who are obligated in the first instance to volunteer their services. Up to the present, filling the ranks of the medical corps of the Army and Navy has been on a voluntary basis but this plan will not be continued unless a greater number of physicians, especially those under 37 years of age, offer their services in this time of crisis. The need can be met if available physicians will awaken to a full realization of the prevailing situation and enter the armed forces immediately."

STATISTICS ON MEN NOW IN SERVICE

Dr. Conard pointed out that the records of the Procurement and Assignment Committee and the card index on physicians in military service maintained by the Ohio State Medical Association show that 1662 Ohio physicians hold commissions in the medical corps of either the Army or the Navy, (1522 Army; 140 Navy) and are on active duty or are awaiting orders to report for active duty.

Approximately 900 of Ohio's medical officers received their commissions since May 1, having been commissioned by the Ohio Medical Officer Recruiting Board or directly from Washington by the War or Navy Departments. Approximately 475 Ohio physicians who filed applications for the Army Medical Corps with the Ohio recruiting board have been physically disqualified. The papers of about 350 additional Ohio physicians who filed applications with the recruiting board have been transmitted to the Surgeon General for evaluation of physical findings, determination of rank, or review because the applicant is a graduate of a Class B school, foreign graduate, and similar reasons. It is possible that at least half of this number will be offered commissions. Some of the men who filed applications were held as non-available by the Procurement and Assignment Committee because in the opinion of the committee they could not be spared from their community due to circumstances which developed after they had applied.

ESTIMATE 600 MORE FROM OHIO NEEDED BY JAN. 1

"Despite these statistics which indicate that the recruiting program is picking up momentum each day, Ohio will have to produce many more medical officers between now and the end of the year," Dr. Conard said.

"It is estimated by the Ohio Procurement and Assignment Committee that Ohio will be expected to furnish no less than 600 additional medical officers for the Army Medical Corps alone between now and January 1, 1943. This figure may have to be increased within another 30 days. There is no fixed quota for any state or any community. There can be no fixed quota as the size of the Army is increasing rapidly and any quota established today may be obsolete a week from today. The only logical answer to the question 'How many?' is: 'Every qualified physician of military age who can be spared from his present activity must enter the service.' What the need will be after the first of the year cannot be predicted at this time but we do know the approximate need for medical officers now and for the balance of 1942."

Dr Conard called attention to the first of a series of bi-monthly reports required from the army and navy under a new Federal law, filed on August 20 by Secretary of War Stimson, in which Secretary Stimson stated that of the 18,967 civilians commissioned by the Army during June and July, approximately 10,000, or 53 per cent, were physicians.

"This report shows two things, among others," Dr. Conard stated, "First it shows that the need of the Army for between 20,000 and 25,000 new medical officers before the end of the year has only been half met. Second, it indicates on the other hand that the medical profession is beginning to rally to the Army's need and is now making a real effort to meet its obligation to the country."

POSSIBLE PENALTY FOR THOSE WHO DELAY

Two recent actions by the Surgeon General and the National Selective Service System have a direct bearing on the complications which may arise for an available physician of military age who delays too long in volunteering his services.

Orders have been issued by the Surgeon General to the medical officer recruiting boards not to accept applications from physicians, dentists or veterinarians who have either been inducted under the Selective Service Act as privates or who have been ordered up for induction by their local Selective Service Board. According to the announcement of this action made by Colonel Jones, "these men will find it necessary to make applications for a commission through regular military channels after they are in the Army and will serve as enlisted men until these channels grant them commissions."

On August 4 National Selective Service Headquarters issued the following instructions (Local Board Release No. 144) to all local Selective Service Boards, effective August 20:

"Registrants applying for a commission or for enlistment in the armed forces have heretofore been considered for deferment or postponement of induction pending final action on their applications. That procedure is discontinued. Hereafter, registrants otherwise available for military service shall not be considered for deferment or postponement of induction by reason of having made application for a commission or for enlistment. Where such deferment or postponements have been granted before August 20, 1942, they shall be continued for the period for which granted even though the period of such deferments or postponements may extend beyond that date. The

Army, Navy, Marine Corps, and Coast Guard have been requested, whenever a registrant is commissioned or enlisted by them, immediately to notify the registrant's local board."

STATEMENT IS INTERPRETED

The above memorandum from National Selective Service Headquarters means that a physician registrant cannot obtain a deferment or postponement of induction simply because he has an application for a commission pending. Of course, a local board could place such registrant in some deferred classification for other reasons, permitted by the Selective Service Act, but could not defer him for the sole reason, that he has applied for a commission. Physicians likely to be placed in Class 1-A by their local board should immediately report to the recruiting board, file an application and request prompt action so they can be sworn in before induction orders are issued by the local Selective Service Board.

Although, the new Selective Service order states that the armed forces have been requested to notify local Selective Service Boards when registrants are commissioned, it would be advisable for a physician to personally notify his local draft board as soon as he takes the oath of office as a commissioned officer and to ask the recruiting board to send a notification to the draft board.

It was pointed out by Dr. Conard that there has been a definite acceleration on the part of the War and Navy departments in commissioning physicians who had filed applications direct with the offices of the Surgeons General of the Army or Navy, or the Office of the Air Surgeon. He stated that the slowness at Washington in acting on applications which had been filed many months ago had been the basis for a great deal of justifiable criticism on the part of physicians but that real efforts are being made now to correct that condition.

APPLICANTS WITH HAY FEVER TO BE RE-EXAMINED

Due to recent changes in interpretation of regulations governing physical standards for medical officers of the Army, the Ohio Medical Officer Recruiting Board is requesting applicants for a commission who were temporarily disqualified by reason of hay fever and those whose papers have been forwarded by the board to the Surgeon General for evaluation of physical findings where a history of hay fever was indicated, to report for a supplemental physical examination at one of the following Station Hospitals: Fort Hayes, Columbus, Ohio; Fort Thomas, Kentucky; Fort Knox, Kentucky; and Fort Benjamin Harrison, Indiana. The Board states that it is now possible that many of these applicants may meet the physical requirements.

DON'T WAIT ON WASHINGTON TO ACT

"We would again like to re-emphasize," Dr. Conard said, "that any physician who has had an application for the Army Medical Corps pending at Washington for a period of more than six weeks, should get in touch with the Ohio Medical Officer Recruiting Board at Columbus. That board can accept a new application and can expedite the obtaining of a commission. Those who have applied for a commission in the Navy Medical Corps months ago should request definite advice from the Navy. If his application filed with the Navy is rejected for any reason, a physician should immediately file an application with the recruiting board for a commission in the Army Medical Corps. A physician, of course, is entitled to choose the branch of service with which he would like to serve, but rejection by one branch does not relieve him of the obligation to offer his services to another."

HAS AIR OFFICER ATTACHED

Colonel Jones in his statement emphasized that the Ohio Medical Officer Recruiting Board has an Air Officer as a part of its personnel and is empowered to accept applications from physicians desiring duty with the Air Corps. The following quotation from his statement is of interest to all physicians of military age:

"The expansion program for the Army Air Force will require 1000 to 1200 new physicians a month for that service alone. The same standards are used in determining the initial rank given doctors assigned to the Air Corps as are used for all doctors who are given a commission. Approximately 20% of all medial officers on duty with the Army Air Force will be trained as Flight Surgeons.

"Physicians and dentists appointed in the Medical Corps and in the Dental Corps, Army of the United States, will be given a period of training, and subsequently assigned to duties appropriate to their professional qualifications. As far as is practicable those interested in special branches of medicine are given such assignments so that hospital units, when activated, will have staffs prepared to render every medical and surgical service required. Courses will be established in some universities and military installations to give instruction in neuro-surgery, surgery of the extremities, Tropical Medicine, Epidemiology, and in several other subjects as post-graduate training for physicians needed for duty in such specialties."

OFFICIAL MEMO ON AIR FORCE

The full text of the bulletin issued by the Headquarters of the Army Air Force, War Department, and referred to by Colonel Jones, reads as follows:

"The expansion program of the Army Air Forces now in progress will necessitate recruiting between 1000 and 1200 physicians per month for the remainder of the calendar year.

"The basic qualifications for duty with the Army Air Forces are the same as for other branches of the Army. However, because of diversified duties and necessary mobility, the predominate need is for physicians in the younger age group, i. e. under 37, who are qualified for full military duty and who possess imagination and vigor. The Air Force Physician will frequently be called upon to meet situations taxing to the utmost his ingenuity and ability. Physicians in the younger age group who are qualified for limited service only will be accepted for duty with the Air Forces, their professional attainments usually designating the type of duties to which they will be assigned, the remainder of the vacancies for the most part being filled by physicians in the age group of 37 to 45 years. There are many desirable vacancies for physicians possessing specialized clinical training, they finding themselves assigned to an active clinical service in one of the Air Force Station Hospitals. Those physicians in the age group from 46 to 50 years who are highly trained, will be given due consideration for a commission and assignment in keeping with their professional attainments and existing vacancies.

"Applicants for duty with the Army Air Forces will receive the same initial rank as those being appointed to serve in any other branch of the Army in concurrence with published standards of The Surgeon General's Office now being used by the Recruiting Boards. The Recruiting Boards will process applicants for duty with the Air Forces using their regular established procedure, both those commissioned by the Board and those whose papers are forwarded without being commissioned, the only difference being that applicants desiring duty with the Air Forces will have their papers marked 'AIR' and forwarded directly to THE AIR SURGEON, HEADQUARTERS ARMY AIR FORCES, WASHINGTON, D.C.

CHANCE FOR SPECIAL TRAINING

"Approximately 20 per cent of all of the Medical Corps Officers on duty with the Army Air Forces at any one time need to be especially qualified in Aviation Medicine. To accomplish this goal, the School of Aviation Medicine at Randolph Field, Texas, is in continuous session and will accommodate a new class every six weeks. Each class at the School continues for a period of three months and upon successful completion of the course, the graduate is certified as an 'Aviation Medical Examiner' and becomes eligible for the rating of 'Flight Surgeon' after he has served a minum of at least one year with the Air Forces in the practice of Aviation Medicine. All 'Aviation Medical Examiners' and 'Flight Surgeons' may be placed on flying status as observers and receive extra pay when their duty assignments with the Air Forces are such as to indicate their need for flying. All students at the school are selected from those Medical Corps Officers serving on active duty with the Army—those serving with the Army Air Forces having first priority.

"To be eligible to attend the School officers must not be over 35 years of age and be able to pass the physical examination for flying duty as a Technical Observer. No officers are selected for this course who do not thoroughly desire to attend and whose physical energy and mental alertness combined with tact and personality are such as to indicate that they would do professionally well in the intensive course of study at the School and eventually make good 'Flight Surgeons'. Applications may be made to the Senior Medical Corps Officer (the Post Surgeon) at the Army Air Base at which the applicant first reports for duty.

"Duty assignment will be (a) Tactical Units with Task Forces; (b) station hospitals.

"The professional record of each officer will be scrutinized so as to effect his assignment in accordance with his professional qualifications and the needs of the service.

"Because of the acute housing shortage in and near all of the expanding Air Force installations, it is strongly recommended that families not accompany the officer when he reports for duty, they following only after definite housing facilities have been obtained."

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of 422 Ohio physicians commissioned in the Medical Corps of the Army or Navy since the August issue of *The Journal* went to press about July 24 and up to August 24. Many of them are on active duty; others are awaiting orders and assignment:

Name	City	Rank
Allison, Robert T.	Akron	Major, U.S.A.
Ameter, Russell K.	Bryan	1st Lt., U.S.A.
Amstutz, Hubert M.	Lancaster	Capt., U.S.A.
Amstutz, Omar C.	Bellefontaine	Capt., U.S.A.
Anagnost, Basil D.	Toledo	1st Lt., U.S.A.
Andrews, Willard	Columbus	Capt., U.S.A.
Aronoff, Nathan	Leipsic	1st Lt., U.S.A.
Artman, Edwin H.	Chillicothe	1st Lt., U.S.A.
Bakos, John	Akron	Capt., U.S.A.
Bane, Russell C.	Chillicothe	Capt., U.S.A.
Bannister, Wm. K.	Columbus	Lt., U.S.N.
Barnhiser, Von Bergen	Camden	Capt., U.S.A.
Basinger, Norman E.	Elyria	Lt., U.S.N.
Bassett, Garry G.	Cleveland	Capt., U.S.A.
Battles, M. L.	Chesterland	1st Lt., U.S.A.
Baube, John L.	Mt. Vernon	Capt., U.S.A.
Baurichter, Francis X.	Cincinnati	Capt., U.S.A.
Beale, Charles C.	Mt. Sterling	Capt., U.S.A.
Bean, Wm. B.	Cincinnati	Capt., U.S.A.
Beers, Geo. W.	Canton	1st Lt., U.S.A.
Belinky, David A.	Youngstown	Capt., U.S.A.
Bell, James R.	Shaker Heights	Capt., U.S.A.
Bell, Paul L.	Toledo	1st Lt., U.S.A.
Belmont, Morrison M.	Youngstown	Capt., U.S.A.
Berlesky, Harry S.	Barberton	1st Lt., U.S.A.
Berry, Clyde W.	Wapakoneta	Capt., U.S.A.
Bishko, Maurice J.	University Hgts.	1st Lt., U.S.A.
Blackstone, P. A.	Bellville	Capt., U.S.A.
Blaugrund, Charles	Cleveland	Capt., U.S.A.

Name	City	Rank
Bly, Frank H.	Akron	Capt., U.S.A.
Boettner, John F.	Cleveland	Capt., U.S.A.
Borelli, John F.	Hamilton	Capt., U.S.A.
Bowlen, J. J.	Akron	Major, U.S.A.
Brandwan, Samuel R.	Shaker Heights	Capt., U.S.A.
Bratton, Paul C.	Sidney	Capt., U.S.A.
Braun, Emery J.	Akron	1st Lt., U.S.A.
Broh-Kahn, R. H.	Cincinnati	1st Lt., U.S.A.
Brown, Wayne E.	Clyde	1st Lt., U.S.A.
Brown, Willard C.	Warren	Capt., U.S.A.
Brown, W. H.	Bowling Green	1st Lt., U.S.A.
Brumbaugh, Herbert L.	Dayton	Major, U.S.A.
Brunsting, Henry A.	Toledo	Capt., U.S.A.
Bubna, Louis Edw.	Cleveland	1st Lt., U.S.A.
Buck, John F.	Toledo	Capt., U.S.A.
Buckner, Leslie M.	Cincinnati	Capt., U.S.A.
Burkons, Harold F.	Shaker Heights	1st Lt., U.S.A.
Burns, John T.	Cincinnati	Capt., U.S.A.
Castle, Edward B.	Shaker Heights	Capt., U.S.A.
Cava, Jasper F.	Mingo Junction	Capt., U.S.A.
Chaikin, Wm. Earl	Cleveland	1st Lt., U.S.A.
Chalker, Everett M.	Youngstown	1st Lt., U.S.A.
Clarke, Francis J.	Cleveland Heights	Capt., U.S.A.
Clodfelter, H. M.	Columbus	Lt. Comdr., U.S.N.
Cohen, Jacob	Steubenville	1st Lt., U.S.A.
Compton, Wm. C.	Cincinnati	Major, U.S.A.
Cook, John M.	Cleveland	1st Lt., U.S.A.
Cooke, Robert E.	Harrison	1st Lt., U.S.A.
Cooper, Maurice P.	Toledo	Capt., U.S.A.
Counts, Richard L.	Chillicothe	1st Lt., U.S.A.
Courleuy, K. H.	Huron	1st Lt., U.S.A.
Cress, O. E.	Van Wert	1st Lt., U.S.A.
Cunningham, Thos. R.	Fremont	Lt., U.S.N.
Damerow, Wesley P.	Cincinnati	Capt., U.S.A.
Damstra, E. F.	Dayton	Capt., U.S.A.
Danahy, John C.	Cincinnati	Lt. Comdr., U.S.N.
Daus, Homer J.	Cleveland	1st Lt., U.S.A.
Davin, W. A.	Hamilton	Capt., U.S.A.
Davis, Edward J.	North Canton	1st Lt., U.S.A.
Decker, Martin	Middletown	1st Lt., U.S.A.
Deitchman, L. S.	Youngstown	Major, U.S.A.
Denning, Francis J.	Steubenville	1st Lt., U.S.A.
Denny, Wm. L.	Cambridge	Capt., U.S.A.
Devanney, John W.	Cincinnati	1st Lt., U.S.A.
Devins, Edw. J.	Cincinnati	1st Lt., U.S.A.
Dobkin, J. J.	Toledo	1st Lt., U.S.A.
Donnelly, James H.	Cleveland	1st Lt., U.S.A.
Downey, Frank S.	Sidney	Capt., U.S.A.
Eisenberg, Samuel H.	Akron	Capt., U.S.A.
Ellery, James A.	Shelby	1st Lt., U.S.A.
Elliott, Harold B.	Springfield	Capt., U.S.A.
Emslie, Robert J.	Elyria	Capt., U.S.A.
Engel, Walter G.	Cincinnati	Capt., U.S.A.
Englander, Howard H.	East Cleveland	1st Lt., U.S.A.
Epstein, Isadore S.	Cleveland	1st Lt., U.S.A.
Erb, A. W.	Piqua	1st Lt., U.S.A.
Extejt, Andrew J.	Toledo	1st Lt., U.S.A.
Fabing, Howard	Cincinnati	Major, U.S.A.
Falor, Wm. H.	Akron	1st Lt., U.S.A.
Fath, August F.	Cincinnati	Capt., U.S.A.
Faue, Clarence G.	Newark	Capt., U.S.A.
Faul, Wm. L.	Georgetown	Capt., U.S.A.
Felson, Walter	Greenfield	1st Lt., U.S.A.
Fink, Myron	Toledo	1st Lt., U.S.A.
Finnical, R. N.	Cadiz	Lt. (j.g.), U.S.N.
Firestone, B. I.	Youngstown	1st Lt., U.S.A.
Fisher, Abe Alvin	Canton	Capt., U.S.A.
Fisher, Jerome	Columbus	1st Lt., U.S.A.
Fox, Dale E.	Covington	Capt., U.S.A.
Frank, Albert E.	Youngstown	1st Lt., U.S.A.
Frank, Herbert	Ravenna	1st Lt., U.S.A.
Franke, Wm. J.	Akron	1st Lt., U.S.A.
Frankle, H. P.	Lima	1st Lt., U.S.A.
Freeman, Marvin S.	Lakewood	1st Lt., U.S.A.
Frick, David C.	Toledo	Capt., U.S.A.
Friedman, David L.	Toledo	1st Lt., U.S.A.
Friedman, Milton I.	Akron	Capt., U.S.A.
Gallagher, John E.	Rossford	1st Lt., U.S.A.
Garrett, Wm. M.	Frankfort	1st Lt., U.S.A.
Gavin, James O.	East Cleveland	1st Lt., U.S.A.
Geer, J. G. Paul	Wauseon	Lt., U.S.N.
Geiser, Edward J.	Cheviot	1st Lt., U.S.A.
Gettman, Robert L.	Marion	1st Lt., U.S.A.
Gibson, Henry H.	Akron	1st Lt., U.S.A.
Gilbert, Norton H.	Cleveland Hgts	Capt., U.S.A.
Gillen, John L.	Canton	Capt., U.S.A.
Gillespie, Byron	Woodsfield	Capt., U.S.A.
Ginsburg, Matthew	Toledo	Capt., U.S.A.
Glicksberg, E. L.	Cleveland	1st Lt., U.S.A.
Goldberg, Morris	Columbus	1st Lt., U.S.A.
Golden, Ralph R.	Lima	1st Lt., U.S.A.
Goldfarb, Bernard J.	Cleveland	Capt., U.S.A.
Good, Roland H.	Van Wert	Capt., U.S.A.
Goodman, Milton L.	Columbus	1st Lt., U.S.A.
Gordon, Everett J.	Cincinnati	Capt., U.S.A.
Graf, Douglas P.	Cincinnati	1st Lt., U.S.A.
Graham, Paul J.	Cincinnati	Capt., U.S.A.
Greenlee, Arthur A.	Dennison	1st Lt., U.S.A.
Gribbin, Edward A.	Toledo	Capt., U.S.A.
Grise, Francis V.	Dayton	Capt., U.S.A.
Gross, Joseph	Cleveland	Capt., U.S.A.
Grove, Paul C.	Newark	Capt., U.S.A.
Guarnieri, Frank G.	Warren	1st Lt., U.S.A.
Hagen, Spencer	Cincinnati	Capt., U.S.A.
Hahn, Carl W.	Cleveland	Capt., U.S.A.
Halley, John	Vermillion	1st Lt., U.S.A.
Hamilton, I. B.	Canton	Major, U.S.A.
Hamilton, Joseph W.	Akron	1st Lt., U.S.A.
Hamilton, Lester A.	Athens	1st Lt., U.S.A.
Harder, Frank K.	Cincinnati	Capt., U.S.A.
Harding, John	Cincinnati	Capt., U.S.A.
Hauser, John W.	Cincinnati	1st Lt., U.S.A.
Hauss, John F.	Celina	1st Lt., U.S.A.
Hautzenroeder, Leonard A.	Mansfield	Capt., U.S.A.
Hawver, Kenneth G.	Lima	Capt., U.S.A.
Hayes, Thomas M.	Springfield	1st Lt., U.S.A.
Hendricks, A. B.	Cincinnati	Capt., U.S.A.
Hepp, William	Norwood	Capt., U.S.A.
Hermeyer, Mark E.	Napoleon	Capt., U.S.A.
Hersberger, Ralph E.	Tiffin	Capt., U.S.A.
Hertz, Harold J.	Cleveland Heights	1st Lt., U.S.A.
Hertzberg, Jos. M.	Toledo	Capt., U.S.A.
Higgins, Edwin L.	Cincinnati	1st Lt., U.S.A.
Hill, Frank R.	Cleveland Heights	Capt., U.S.A.
Hill, Myron G.	Euclid	Capt., U.S.A.
Hoecher, Robert H.	Mt. Vernon	Capt., U.S.A.
Hoodin, Abraham	Niles	1st Lt., U.S.A.
Housley, John L.	Cuyahoga	Capt., U.S.A.
Howard, Kenneth R.	Toledo	Capt., U.S.A.
Hudson, William E.	New Philadelphia	Capt., U.S.A.
Humel, Elbert J.	Cleveland	Capt., U.S.A.
Huth, Paul O.	Cambridge	Lt. Comdr., U.S.N.
Ingling, Howard H.	Springfield	1st Lt., U.S.A.
Inskeep, Lewis Carey	Urbana	1st Lt., U.S.A.
Irvin, Emory R.	Bradford	Capt., U.S.A.
Jack, Courtney L.	Cincinnati	Capt., U.S.A.
Jacka, Edwin R.	Bryan	1st Lt., U.S.A.
James, Arthur	Columbus	Capt., U.S.A.
Janney, James R.	North Baltimore	1st Lt., U.S.A.
Jansen, Jos. H., Jr.	Cincinnati	1st Lt., U.S.A.
Jinnings, Loren E.	Edon	Capt., U.S.A.
Johns, Alexander N.	Toledo	Capt., U.S.A.
Johnson, James B., Jr.	Newark	1st Lt., U.S.A.
Jolly, Paul N.	Cincinnati	1st Lt., U.S.A.
Jones, James F.	Cleveland	Capt., U.S.A.
Jones, John L.	Medina	Capt., U.S.A.
Kackley, D. D.	Columbus	1st Lt., U.S.A.
Kalb, Nathan	Cygnet	1st Lt., U.S.A.
Karch, John M.	Cincinnati	Capt., U.S.A.
Karwowski, Bernard A.	Toledo	Capt., U.S.A.
Kattus, Jos. Henry	Cincinnati	Capt., U.S.A.
Katz, Philip	Toledo	Capt., U.S.A.
Kaufman, Karl F.	Bedford	1st Lt., U.S.A.
Keidel, Clifford L.	Cleves	Capt., U.S.A.
Kelker, John R.	Fairview Village	Capt., U.S.A.
Kenney, Vernon C.	Chagrin Falls	Capt., U.S.A.
Kersell, Lloyd L.	Lancaster	Capt., U.S.A.
Kesinger, Herbert F.	McArthur	1st Lt., U.S.A.
Kessler, S. W.	Cleveland	Capt., U.S.A.
Kimmelman, David B.	Columbus	1st Lt., U.S.A.
Kingsley, Glenn E.	Lorain	1st Lt., U.S.A.
Kirkbride, Willis J.	Toledo	1st Lt., U.S.A.
Klewer, Harold W.	Toledo	Lt., U.S.N.
Knight, Frederick E.	Grafton	Lt. (j.g.) U.S.N.
Kotershall, Edw. F.	Cleveland	Capt., U.S.A.
Kronenberg, Sanford	Youngstown	1st Lt., U.S.A.
Kulle, Henry F.	Cincinnati	Capt., U.S.A.
Kupec, Jos. B.	Youngstown	1st Lt., U.S.A.
Kupper, Wm. H.	Athens	1st Lt., U.S.A.
Lacksen, Frank J.	Columbus	Major, U.S.A.
Lancione, Peter	Bellaire	1st Lt., U.S.A.
Langan, Paul C.	Akron	Major, U.S.A.
Lapi, Angelo	Canton	1st Lt., U.S.A.
Lauer, Howard	Dayton	1st Lt., U.S.A.
Lawyer, Frank G.	Cambridge	Capt., U.S.A.
Leffler, Paul B.	Toledo	Capt., U.S.A.
Lehrer, Henry G.	Wadsworth	Lt. (j.g.) U.S.N.
Lemon, George H.	Fayette	1st Lt., U.S.A.
Lichtblau, A. A.	Canton	1st Lt., U.S.A.
Lieberman, H. G.	Akron	1st Lt., U.S.A.
Light, T. L.	Dayton	Capt., U.S.A.
London, McKinley	Cleveland	Lt. Comdr., U.S.N.
Long, Ray H.	Cleveland Heights	Capt., U.S.A.
Lowry, Forrest E..	Urbana	Capt., U.S.A.
Lutz, John R.	North Ridgeville	1st Lt., U.S.A.
Lyon, E. E.	Toledo	Major, U.S.A.

Name	City	Rank
MacDougall, Edw. L.	Niles	1st Lt., U.S.A.
Mack, Joseph	Canton	1st Lt., U.S.A.
Maggiore, J. J.	Canton	1t Lt., U.S.A.
Mahl, George K.	Ironton	Capt., U.S.A.
Malasky, Bernard S.	Cleveland Heights	1st Lt., U.S.A.
Malock, Leon J.	Youngstown	Capt., U.S.A.
Malong, Edmund	Cleveland	Capt., U.S.A.
Markey, Robert C.	Dayton	Capt., U.S.A.
Marley, Harold V.	Cleveland	1st Lt., U.S.A.
Marlowe, Chas. R.	Toledo	1st Lt., U.S.A.
Marr, James T.	Cleveland	1st Lt., U.S.A.
Martin, Archie J.	Adena	1st Lt., U.S.A.
Martin, James F.	Cincinnati	1st Lt., U.S.A.
Martin, K. E.	Cincinnati	Lt. Comdr., U.S.N.
Martin, M. B.	Springfield	1st Lt., U.S.A.
Martin, Marion R.	Geneva	Capt., U.S.A.
Martin, Walter E.	Columbus Grove	1st Lt., U.S.A.
Martin, Wm. J.	Fremont	1st Lt., U.S.A.
Martinelli, A. C.	Youngstown	Capt., U.S.A.
Maxwell, Howard D.	Alliance	Capt., U.S.A.
Mayfield, F. H.	Cincinnati	Capt., U.S.A.
McBroom, R. E.	McComb	Capt., U.S.A.
McClelland, E. E.	Bellaire	Capt., U.S.A.
McConkey, Auren W.	Canton	Capt., U.S.A.
McGavran, Chas. W.	Columbus	1st Lt., U.S.A.
McGraw, Elmer A.	Toronto	1st Lt., U.S.A.
McKelvey, Robert H.	Salem	Capt., U.S.A.
McLaughlin, John B.	Columbus	Capt., U.S.A.
McNeil, C. A.	Toledo	Lt. Comdr., U.S.N.
Mehl, Lawrence B.	Cuyahoga Falls	Capt., U.S.A.
Mehlman, I. J.	Attica	Capt., U.S.A.
Mielcarek, P. A.	Cleveland	Capt., U.S.A.
Miessner, Alfred D.	Port Clinton	Capt., U.S.A.
Miller, Lawrence H.	Granville	1st Lt., U.S.A.
Miller, Louis	Cleveland Heights	1st Lt., U.S.A.
Miller, Noah	Akron	Capt., U.S.A.
Miller, R. F.	Bellevue	Capt., U.S.A.
Miller, Thomas E.	Ironton	1st Lt., U.S.A.
Miller, Thomas S.	Maumee	1st Lt., U.S.A.
Minning, Carl A.	Williamsburg	Capt., U.S.A.
Mitchell, W. F.	Columbus	1st Lt., U.S.A.
Mohr, Truman J.	Lockland	Capt., U.S.A.
Molle, S. Albert	Toledo	1st Lt., U.S.A.
Mollin, Edwin L.	Akron	1st Lt., U.S.A.
Moore, F. T.	Cuyahoga Falls	Major, U.S.A.
Moorehead, James R.	Seville	Capt., U.S.A.
Moorehead, Orman, Jr.,	Athens	1st Lt., U.S.A.
Morton, Wallace	Toledo	Capt., U.S.A.
Mowrey, John H.	Conneaut	1st Lt., U.S.A.
Murphy, Howard J.	Toledo	Capt., U.S.A.
Mutschmann, P. N.	Warren	Major, U.S.A.
Namen, Jay M.	Cleveland Heights	Capt., U.S.A.
Nathan, D. A.	Cincinnati	1st Lt., U.S.A.
Neal, Wm. J.	Archbold	1st Lt., U.S.A.
Needham, Leslie E.	Conneaut	Capt., U.S.A.
Neff, Garnett E.	Portsmouth	Capt., U.S.A.
Nicholson, Owen J.	Norwalk	Capt., U.S.A.
O'Dea, Frank J.	Cleveland	1st Lt., U.S.A.
Osherwitz, M. S.	Cincinnati	1st Lt., U.S.A.
Ostergard, Robert P.	Canton	1st Lt., U.S.A.
Owen, K. A.	Akron	Capt., U.S.A.
Owens, A. J.	Youngstown	1st Lt., U.S.A.
Paisley, Ralph C.	Loudonville	Capt., U.S.A.
Palmer, G. A.	Akron	Major, U.S.A.
Park. Benjamin S.	Painesville	Lt. Comdr., U.S.N.
Pastor, Julius W.	Cleveland	Capt., U.S.A.
Pater, Joseph L.	Hamilton	1st Lt., U.S.A.
Payne, L. W.	Willoughby	Capt., U.S.A.
Pennington, Wm. A.	Marion	1st Lt., U.S.A.
Petcoff, B. E.	Toledo	Capt., U.S.A.
Petcoff, John E.	Toledo	1st Lt., U.S.A.
Peterson, Guy S., Jr.	Cleveland	1st Lt., U.S.A.
Pevaroff, H. H.	Cleveland	Capt., U.S.A.
Pfeiffer, Chas. L.	Cincinnati	Lt., U.S.N.
Phillips, A. K.	Youngstown	1st Lt., U.S.A.
Phillips, Clovis H.	Cleveland	Major, U.S.A.
Phillips, Wm. A.	Toledo	1st Lt., U.S.A.
Phinney, Jas. D.	Cincinnati	1st Lt., U.S.A.
Piatt, Arnold D.	Newark	Capt., U.S.A.
Picha, V. J.	Cleveland	1st Lt., U.S.A.
Pokerr, Leo	Fremont	Capt., U.S.A.
Polot, David M.	Cleveland Heights	Capt., U.S.A.
Powell, James G.	Painesville	Capt., U.S.A.
Press, Sanford	Steubenville	1st Lt., U.S.A.
Purchla, Edward J.	Toledo	1st Lt., U.S.A.
Raitz, Roswell E.	Cincinnati	Capt., U.S.A.
Rardin, Thomas E.	Columbus	1st Lt., U.S.A.
Ravitz, Samuel F.	Gallipolis	Capt., U.S.A.
Read, John T.	Columbus	1st Lt., U.S.A.
Reading, Paul E.	Painesville	1st Lt., U.S.A.
Regan, Wm. Leo	Wilmington	Capt., U.S.A.
Rhiel, James I.	Eaton	1st Lt., U.S.A.
Rian, Carlos D.	Massillon	Capt., U.S.A.
Rice, F. A.	Cleveland	Lt. Col., U.S.A.
Richards, Robert R.	Lakewood	1st Lt., U.S.A.
Riemer, Harry J.	Cleveland Heights	Capt., U.S.A.
Rilling, R. S.	Findlay	Major, U.S.A.
Risley, Clarence T.	Conneaut	Capt., U.S.A.
Roach, Wm. L.	North College Hill	Capt., U.S.A.
Roback, Harry N.	Cuyahoga Falls	Major, U.S.A.
Rockwern. Samuel A.	Cincinnati	Capt., U.S.A.
Rodabaugh, Galon S.	Basil	1st Lt., U.S.A.
Roenick, Henry H.	Cleveland	1st Lt., U.S.A.
Rohr, Lovell W.	Columbus	Capt., U.S.A.
Rosenbaum, Jos. G.	Brecksville	Capt., U.S.A.
Rosenblum, Morris S.	Youngstown	Capt., U.S.A.
Ross, Alfred C.	Cincinnati	Capt., U.S.A.
Ross, Paul S.	Columbus	1st Lt., U.S.A.
Roth, Dale E.	Newark	Capt., U.S.A.
Rubin, Nathan A.	Canton	1st Lt., U.S.A.
Russell, Wm. E.	Genoa	1st Lt., U.S.A.
Sancetta, Salvator M.	Cleveland	1st Lt., U.S.A.
Sawyer, Theodore D.	Crestline	Capt., U.S.A.
Scaggs, Wm. E.	Portsmouth	Capt., U.S.A.
Scarnecchia, John L.	Youngstown	Capt., U.S.A.
Schaffer, Allan L.	Cleveland Heights	1st Lt., U.S.A.
Schaal, J. A. D.	Cincinnati	Capt., U.S.A.
Schauer, Jos. R.	Dayton	1st Lt., U.S.A.
Scheetz, M. E.	Kalida	1st Lt., U.S.A.
Schlueter, S. A.	Akron	Major, U.S.A.
Schork, Rudolph J.	Elyria	Capt., U.S.A.
Schroer, Wm. A.	Ft. Loramie	1st Lt., U.S.A.
Schugen, Wm. F.	Cincinnati	Capt., U.S.A.
Schulze, Alfred G.	Amelia	1st Lt., U.S.A.
Schwartz, Ferdinand F.	Painesville	Capt., U.S.A.
Schwartz, Harold	Cleveland	1st Lt., U.S.A.
Seikel, Geo. R.	Akron	Capt., U.S.A.
Selman, Morris W.	Toledo	Capt., U.S.A.
Shagrin, Arthur	Cleveland Heights	Capt., U.S.A.
Shanahan, E. J.	Clyde	Capt., U.S.A.
Shapiro, S. J.	Warren	Capt., U.S.A.
Siegel, Samuel R.	Cleveland Heights	Capt., U.S.A.
Silver, Nathan	Cincinnati	1st Lt., U.S.A.
Sloan, Richard H.	Marietta	1st Lt., U.S.A.
Smith, Birna R.	Lewisburg	1st Lt., U.S.A.
Smith, C. A.	Dayton	1st Lt., U.S.A.
Smith, G. R.	Painesville	1st Lt., U.S.A.
Smith, Ivan C.	Youngstown	Major, U.S.A.
Smith, J. Fred	Montpelier	Lt. Comdr., U.S.N.
Smith, Paul W.	Lorain	1st Lt., U.S.A.
Smith, Robert J.	Cleveland	Capt., U.S.A.
Smith, Wayne C.	Van Wert	1st Lt., U.S.A.
Smythe, J. W., Jr.	Cleveland	1st Lt., U.S.A.
Snively, Lloyd M.	Massillon	1st Lt., U.S.A.
Snyder, Roscoe H.	Toledo	Capt., U.S.A.
Sperry, Donald R.	Newark	1st Lt., U.S.A.
Sroupe, Douglas G.	Cincinnati	Capt., U.S.A.
Starbuck, Ralph J.	Salem	1st Lt., U.S.A.
Stas, Carl A.	Cleveland	1st Lt., U.S.A.
Stevenson, Jean M.	Cincinnati	Major, U.S.A.
Stoodt, Paul A.	Mansfield	Major, U.S.A.
Stonehill, Theodore	Cleveland	1st Lt., U.S.A.
Stolzer, Irvin H.	Cleveland	1st Lt., U.S.A.
Strait, John M.	Columbus	1st Lt., U.S.A.
Strohmenger, W. L.	Cincinnati	Lt., U.S.N.
Strong, James C., Jr.	Cincinnati	1st Lt., U.S.A.
Stubbs, Samuel, Jr.	Lima	1st Lt., U.S.A.
Stukenborg, Frank X.	Toledo	1st Lt., U.S.A.
Surrington, Cyril	Columbus	Capt., U.S.A.
Swango, J. D.	Waterloo	Capt., U.S.A.
Tamarkin, Samuel	Youngstown	Capt., U.S.A.
Taylor, Thomas Luther	Montpelier	Capt., U.S.A.
Ternocky, Frank	Bloomville	1st Lt., U.S.A.
Thomas, Harold B.	Shaker Heights	Capt., U.S.A.
Thompson, Geo. O	Alliance	Capt., U.S.A.
Tirey, James W.	Anna	1st Lt., U.S.A.
Todd, Oliver E.	Toledo	Capt., U.S.A.
Toomey, Richard S.	Willoughby	1st Lt., U.S.A.
Tramont, Chas. B.	Mt. Vernon	Capt., U.S.A.
Tucker, Thomas	Cincinnati	Lt. (j.g.) U.S.N.
Turek, Robert O.	Cleveland Heights	1st Lt., U.S.A.
Turner, Ray M.	Springfield	1st Lt., U.S.A.
Underwood, Homer D.	Van Wert	1st Lt., U.S.A.
Updegraff, Ralph K., Jr.	Cleveland	1st Lt., U.S.A.
Urban, John Paul	Columbus	1st Lt., U.S.A.
Van Buren, Geo.	Akron	1st Lt., U.S.A.
Van Epps, Herbert F.	Dover	Capt., U.S.A.
Veechio, Frank	Cleveland	Capt., U.S.A.
Viktoryn, John W.	Cleveland	Capt., U.S.A.
Vinnedge, Wm. F.	Hamilton	Capt., U.S.A.
Vollmer, James E.	Cincinnati	Lt. Comdr., U.S.N.
Volpe, Peter A.	Columbus	Capt., U.S.A.
Vorhies, Gerald E.	Scio	1st Lt., U.S.A.
Wallace, Ervin B.	Columbus	Capt., U.S.A.
Weaver, Thomas, Jr.	Cincinnati	Capt., U.S.A.
Weismann, C. J.	Cincinnati	1st Lt., U.S.A.
Weiss, Adam F.	Marietta	Capt., U.S.A.
Weiss, Louis L.	Canton	1st Lt., U.S.A.
Wellmeier, Hugh	Piqua	Major, U.S.A.

Name	City	Rank
Wertheimer, Lee C.	Cincinnati	1st Lt., U.S.A.
Wharram, K. J.	Springfield	Lt., (j.g.) U.S.N.
Wheeler, Ward H.	Columbus	Capt., U.S.A.
Whitehouse, S. W.	Cincinnati	1st Lt., U.S.A.
Widrich, Jack	Cadiz	1st Lt., U.S.A.
Widzer, Ben	Cleveland	1st Lt., U.S.A.
Wiessinger, Russell L.	Sidney	1st Lt., U.S.A.
Wilderom, Morris	Medina	Capt., U.S.A.
Williams, Foster M.	Cincinnati	Capt., U.S.A.
Williams, J. R.	Eaton	1st Lt., U.S.A.
Williams, Lester L.	Mt. Vernon	1st Lt., U.S.A.
Williard, Nicholas	Tiffin	Capt., U.S.A.
Wine, Chas. R.	Dayton	Capt., U.S.A.
Wright, Robert N.	Wooster	Capt., U.S.A.
Yasinow, Aaron B.	Cleveland	Capt., U.S.A.
Yeip, Melvin F.	Cleveland	Lt., U.S.N.
Yingling, Walter E.	Lima	Capt., U.S.A.
York, Jack M.	Painesville	Capt., U.S.A.

WIN PROMOTIONS

During the month of August *The Journal* received information that the following Ohio medical officers have been promoted to the rank indicated:

Name	City	Rank
Arthur, Robert D.	Springfield	Major, U.S.A.
DeWeese, Marion S.	Kent	Capt., U.S.A.
Ensign, Paul R.	Toledo	Col., U.S.A.
Feistkorn, Karl H.	Marion	Capt., U.S.A.
Giber, Philip B.	Girard	Major, U.S.A.
Goldberg, Samuel D.	Youngstown	Major, U.S.A.
Gould, J. I.	Toledo	Major, U.S.A.
Jennings, Wm. M.	Sylvania	Major, U.S.A.
King, Arthur G.	Cincinnati	Lt. Col., U.S.A.
Matuska, Walter H.	Ottawa	Lt. Col., U.S.A.
Pitkin, York N.	Cleveland	Lt. Col., U.S.A.
Seligman, Bert	Toledo	Capt., U.S.A.
Zeno, Ross	Akron	Capt., U.S.A.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 1662 Ohio physicians in the armed forces as of August 24 by counties. This list is unofficial. If there are errors in the tabulations, *The Journal* would appreciate receiving corrections:

Adams	1
Allen	16
Ashland	5
Ashtabula	14
Athens	10
Auglaize	5
Belmont	8
Brown	3
Butler	16
Carroll	1
Champaign	7
Clark	17
Clermont	6
Clinton	4
Columbiana	6
Coshocton	3
Crawford	4
Cuyahoga	403
Darke	3
Defiance	2
Delaware	5
Erie	5
Fairfield	4
Fayette	2
Franklin	161
Fulton	5
Gallia	6
Geauga	3
Greene	8
Guernsey	3
Hamilton	211
Hancock	9
Hardin	3
Harrison	4
Henry	1
Highland	5
Hocking	2
Holmes	1
Huron	9
Jackson	1
Jefferson	18
Knox	10
Lake	11
Lawrence	7
Licking	14
Logan	6
Lorain	21
Lucas	95
Madison	5
Mahoning	68
Marion	10
Medina	8
Meigs	1
Mercer	2
Miami	6
Monroe	2
Montgomery	71
Morgan	1
Morrow	0
Muskingum	5
Noble	1
Ottawa	8
Paulding	2
Perry	3
Pickaway	3
Pike	1
Portage	2
Preble	6
Putnam	4
Richland	30
Ross	11
Sandusky	7
Scioto	10
Seneca	7
Shelby	6
Stark	59
Summit	86
Trumbull	22
Tuscarawas	11
Union	1
Van Wert	6
Vinton	2
Warren	1
Washington	5
Wayne	8
Williams	6
Wood	9
Wyandot	2
Total	1662

A.M.A. Journal Comments on Outbreak of Jaundice Among Troops

Secretary of War Henry L. Stimson announced at a recent press conference that 28,585 cases of jaundice had developed among Army personnel between January 1 and July 4, this year, apparently from the use of vaccination against yellow fever. It is estimated that at that time between 2,000,000 and 2,500,000 men had received the inoculation.

The mortality ratio among these cases of jaundice was one to 461, or a total of 62 deaths. The peak of incidence was the week of June 20, and since that time the number has steadily fallen off.

The Journal of the American Medical Association for August 8 says:

"Since such cases first appeared, investigation of the highest repute in the fields of epidemiology, pathology, infectious diseases and viruses have been intensively engaged in a study of the factors concerned. There is in the minds of those familiar with the situation the firm conviction that the condition concerned certainly **is not yellow fever.** There seems to be no reason to believe that it is yellow fever or any abortive form of that disease.

"The vaccine concerned gives actual protection against yellow fever. Only a few batches of vaccine seem to have been involved, although obviously many thousands of men were inoculated with material from each batch. The investigators feel that the technic of preparation now in use will be followed shortly by a discontinuance of new cases."

In an earlier issue *The Journal* refutes criticism of certain newspapers by saying: "There is every reason to believe that vaccination against yellow fever is warranted and that the occurrence of 62 deaths and some 28,000 cases of jaundice associated with the vaccination of millions of men is far less serious than would be an epidemic of virulent yellow fever among soldiers sent to the tropical areas in which our army is now engaging the enemy."

Civilian Defense Supply Depot

Lt. Col. William S. Keller, Fifth Region medical officer, Office of Civilian Defense, has been notified that a Procurement and Distribution Section and an Allocations Section have been established by the Civilian Protection Branch of the OCD for the purpose of procuring and distributing equipment and supplies, including medical supplies. The depot for the Fifth Region, which includes Ohio, will probably be established somewhere near Chicago. Methods by which communities and states may obtain supplies under this new set-up are outlined in the communication received by Dr. Keller.

War Will Bring Changes in Medical Practice, Dr. Wilson, Columbus, Predicts After Tour of Duty in England

RETURNING to Ameria recently after a six month's tour of duty as director of the American Hospital in Oxford, England. Dr. E. Harlan Wilson, Columbus, brought home the conviction that there will be far-reaching changes in the social structure of English medicine soon after the war, if not earlier. He believes that these changes will certainly be reflected in post-war medical planning in America.

Impending changes in the method of delivering medical service are brought forcibly to one's attention, Dr. Wilson reported, immediately on leaving this country.

"You can't travel outside the United States these days," he said, "without seeing the influence that Russia will exert in the post-war world and without being realistic about the effect of that influence on medical practice."

Realizing this fact, the physicians of England have taken a constructive attitude toward the problem and are making an effort to take a larger part in future medical planning than they did when the Panel System was set up, he said. Panel practice, as it is now organized, is generally conceded to be unsatisfactory, he explained, primarily because it leads to lowered standards of medical care and it inevitably creates a distinction between panel patients and private patients.

INSIST ON FUNDAMENTALS

Dr. Wilson reported that, although English physicians recognize that some plan more comprehensive than the Panel System undoubtedly will be set up for post-war medical services, they are insistent that certain fundamentals of good medical practice be retained. Among them are the right of free choice of physician, avoidance of mass production methods, and decentralized administration of whatever plan is set up.

Interest of the Columbus physician in problems facing Britain's medical profession was heightened through his acquaintance with Sir Farquhar Buzzard, Regis Professor of Medicine at Oxford and chairman of the British Medical Association's Medical Planning Commission. In an interim report of the Commission, Dr. Wilson explained, are the main points of the medical profession's current thinking in this field.

The Commission envisions, he said, a future for medicine in which the family doctor will be the normal medical attendant and guardian and the regional health center will be the place where the family doctor will see most of his patients. The role of the general practitioner in this system will be primarily in the field of prevention and also in counseling patients. Psychology and human relations will become increasingly important subjects for the physician in general practice.

DIFFERENT TRAINING VISUALIZED

A different form of training is foreseen to prepare physicians for this field, Dr. Wilson explained. It is suggested that all medical students be separated at the end of the first two years into two groups: those going into hospital work, and those who wish to go into general practice. All physicians in the pre-medical years would spend considerable time studying sociology and psychology. In his specialized training, the general physician would delve heavily into sociology, psychiatry and public health, while those who are going into hospital service would spend their time on diagnosis and treatment.

Under the plan, as set forth, the general physician would be on a dignified salary in order not to have the question of fees enter into his relationships with patients. He would be assigned a certain number of families and would be trained to detect the early changes which precede more serious conditions later on. Thus he would fulfill the function of an individual public health consultant and would be trained to detect the nerve strains which produce such marked effects in individuals under pressure. The hospital, on the other hand, according to the plan, would be the stronghold of treatment and diagnosis of complicated conditions.

The Committee, in setting up these suggestions, states that it is necessary and desirable to estimate the benefits of medicine to civilian population more fully than they can be estimated under the system of purely individual competitive practice. They point to the difficulty of a young man, especially in a surgical branch, developing properly. Under this system he would start in a hospital at the bottom of the ladder, and his ascent would depend largely upon his ability. During the ascent he would accumulate experience and wisdom. They do not state the financial position of the hospital man but presumably he would also be on a salary basis.

However, Dr. Wilson said, it must not be forgotten that there are two main premises at the beginning of the report calling for the following necessary conditions: (1) Medicine must not be put on a mass production basis and the essence of good medicine is to permit adequate time for thought and study of each patient; (2) Medicine must be maintained on a dignified basis with substantial remuneration and adequate retirement pension for all medical men.

In whatever national system of medical practice is set up, the Commission believes administrative control should be decentralized because of the difficulty of solving local problems with national plans. Broad policies may be established by central authority, but administration should be broken down into regions. It is believed that a "region" should include not less than 500,000 people, and the Commission recommends that there be a teaching hospital in each region.

The regional plan, particularly for hospitals, is based on experience with the wartime Emergency Medical Service, Dr. Wilson said.

In any future plan for medical service in England the Commission recommends as wide a measure of free choice of physician as possible, Dr. Wilson reported. Its interim report declares that "the right of the patient to change his doctor is essential to good medical service. Many of the reasons which bring a patient to a doctor are of psychological origin or involve a psychological factor. A good doctor is as much a friend as a clinician."

The Columbus physician reported also that there is among the English profession a general fear of the effects of bureaucracy in making plans for the future of medicine and that every effort is being made to see that whatever plan is adopted will have the least possible undesirable effects of bureaucratic methods. The Medical Planning Commission, according to its report, is flatly opposed to whole-time salaried government service for physicians.

DESCRIBES WORK OF HOSPITAL

Just at the time Dr. Wilson arrived in England, the American Hospital was transferred from Park Prewitt, Basingstoke, to a 500-bed Emergency Medical Service hospital in Oxford. When he assumed the directorship, he was immediately confronted with such non-medical problems as obtaining laundry services and enough clean linen to run the operating room. In wartime England this was not as simple as it would seem.

The hospital was known as a "reconstruction unit" and received orthopedic cases from the southern division of the British Army as well as from the "blitz" towns of Bath, Portsmouth, Dover, and other coastal cities. It also cared for RAF crash victims, and 15 per cent of its patients were civilian orthopedic cases from waiting lists in Oxfordshire. Its staff included a number of world-famous consultants, among whom were Trueta, who utilized the plaster cast method of bone repair so successfully in the Spanish Civil War, G. R. Girdlestone, retiring professor of orthopedic surgery at Oxford, Hugh Cairns, who has a center for head injuries at St. Hughe's Hospital, Oxford, and Seddon, under whose care are concentrated the peripheral nerve injuries of the British Army.

The Columbia physician's immediate predecessor as director of the American Hospital in Britain was his brother, Dr. Philip Wilson, surgeon-in-chief of the New York Hospital for Special Surgery.

Dr. Wilson traveled to England and back by Clipper plane. He predicts a long war and a United Nation's victory as its outcome. Like others who have seen war-torn England, he developed during his six-months stay there a great respect for the English people's fortitude and determination.

HOSPITAL EXECUTIVES MAY APPLY TO RECRUITING BOARD

It has been announced that the Ohio Medical Officer Recruiting Board may obtain the applications and authorize the physical examination of experienced hospital executives in the age group 30-48 who are engaged in the administration of 250-bed hospitals or larger institutions and forward them to the Surgeon General for consideration for appointment in the Medical Administrative Corps. Those appointed will be assigned to administrative duties in hospitals and other units. Medical Administrative Corps officers will release medical officers from administrative and non-medical duties.

Ohio Low in Per Capita State and Local Taxation, Report Shows

Although Ohio is 12th among the 48 states in average annual income per resident, it is 24th when ranked according to average per capita state and local taxation, according to statistics published by the Ohio Institute, Columbus.

Approximately 46 per cent of the total state and local taxes in Ohio is from property assessments, the Institute survey shows, and 54 per cent is from taxes other than those on property. By comparison with other states, Ohio is 30th among tne 48 in per capita taxation on property and 10th in the amount of state and local taxes paid per capita on other bases than property.

Ohioans pay $9.13 out of every $100 for state and local taxes, the Institute report indicates, and the national average for this figure is approximately $11. Ohio is 40th among the states in percentage of income required for state and local taxes; the eight states with lower percentage are Connecticutt, Maryland, Delaware, Washington, Arkansas, Texas, Nevada, and Virginia. Mississippi is high with an average of 15.91 out of each $100, and Delaware is low with an average of $7.26.

Short Courses in Medical Aspects of Gas Warfare To Be Offered Physicians by Ohio's Three Medical Schools

SHORT extension courses in gas warfare will be offered to practicing Ohio physicians early this Fall under the joint auspices of the state's three medical schools and the Regional Office of Civilian Defense, according to tentative plans now in the process of completion.

Topics to be covered in the proposed lectures include organization of civilian defense in regard to medical aspects of chemical warfare, principles of the chemistry of chemical warfare agents, types of gases, therapy, physiology of individual protection, eye injuries, treatment of burns, and systemic poisons.

Instructors will be faculty members from the three medical colleges in Ohio who recently participated in special sessions on chemical warfare given at the University of Cincinnati College of Medicine and the Kettering Laboratory of Applied Physiology, which is located at the University.

CLASSES HELD IN CINCINNATI

These classes, held July 24 through 26, were for prospective instructors from the Fourth, Fifth, and Eighth Civilian Defense Regions. Ohioans who attended are: Dr. H. D. Claassen, University of Cincinnati; Dr. Charles A. Doan, Ohio State University; Dr. Herman A. Hoster, Ohio State University; Dr. Walter H. Pritchard, Lakeside Hospital, Cleveland; Dr. Herschel Sachs, Cincinnati Health Department; Dr. Joseph Seifter, Western Reserve University; Dr. Doris Twitchell-Allen, Children's Hospital, Cincinnati; Dr. Abbot Wilcox, University of Cincinnati.

Dates for the proposed extension courses will be announced later. It is planned to divide the state into sections so that physicians may attend the lectures at the medical school nearest their homes.

WILL ADDRESS MEDICAL SOCIETIES

The physicians who attended the special course in Cincinnati are also available to present the subject to medical societies, according to Lt. Col. William S. Keller, Regional Medical Officer of the OCD.

Instruction in the chemical aspects of gas warfare is considered especially valuable for all physicians affiliated with the Emergency Medical Service of the OCD, particularly in industrial centers, according to a statement on this subject from Colonel Keller's office. The extension courses, however, will be open to all qualified doctors of medicine.

During the three-day school in Cincinnati, the physicians attending not only heard lectures on gas warfare but also witnessed a field demonstration given by members of the Staff of the War Department Civilian Protection School of Purdue University, directed by Col. Willard Johnson, Chemical Warfare Service. This included a gas mask drill, passage of persons wearing masks through a gas-filled chamber, field identification exercises, and methods of decontamination of materials.

THOSE WHO GAVE INSTRUCTIONS

Instructors at Cincinnati were: Dr. Leon Goldman, Dr. Robert A. Kehoe, Dr. Albert L. Brown, Dr. Marion A. Blankenhorn, and Dr. Milan A. Logan, of the faculty of the University of Cincinnati College of Medicine; Col. George Baehr, chief medical officer of the OCD; Dr. Ward L. Mould and Dr. David D. Rutstein, of the headquarters staff of the OCD; and Dr. Earle B. Mahoney, of the University of Rochester School of Medicine and Dentistry.

Two such courses had been held previously for physicians from other sections of the United States, and similar instruction was also given at the Massachusetts Institute of Technology, Cambridge, and Harvard Medical School, Boston, for physicians from the First Region of the OCD, and at several points on the Pacific coast.

Training in the non-medical aspects of gas warfare was also given to chemists and sanitary engineers during a three-day school at the University of Cincinnati earlier in July.

Industrial Hygiene Manual

A manual on "Industrial Hygiene and Medical Service in War Industries" is being prepared by the Division of Industrial Hygiene of the National Institute of Health and will be released for distribution among industrial physicians and the medical profession generally in the near future. This brochure is being compiled and edited by the Division's full time and consultant staff following a recommendation by the Committee on Industrial Medicine of the National Research Council. According to the resolution initiating the project, the manual will embrace discussions of "toxicity and potential dangers of organic and inorganic substances in the war industries, occupational cutaneous diseases in war industries, engineering control, industrial medical services, nursing in industry, dental services, fatigue, women in industry, medical control of diseases of the respiratory tract, nutrition in war industries, available governmental industrial hygiene services, and integration of plant and community emergency medical services."

Injury If Accidental in Character and Result Is Held To Be Compensable by Supreme Court in Recent Decision

THE following analysis of a recent Ohio Supreme Court decision in a Workmen's Compensation case, prepared by Mr. Webb I. Vorys, general counsel of the Ohio Manufacturers' Association and published in the bulletin of that organization, is of interest to physicians rendering services to Workmen's Compensation claimants:

In Malone v. Industrial Commission, decided by the Ohio Supreme Court recently, the court construed Section 1465-68 for the first time since its amendment in 1937. Malone worked in a foundry where the temperature approximated 113 degrees. He collapsed while carrying molten metal and died from heat prostration. The question turned solely upon whether such facts constituted an injury under the compensation law. The court held that Malone's dependents were entitled to Workmen's Compensation.

Dispute of Long-Standing

The case is another milestone in a legal dispute which is as old as the Workmen's Compensation Law. Compensation is paid for injury occurring in the course of employment and many borderline cases have arisen in which the dispute has been whether an occurence was or was not an injury.

In Industrial Commission v. Franken, 126 O.S. 299, the court held that the term "injury" referred to "such injuries as are accidental in their origin and cause" and denied compensation to a pressman who died of heart failure while handling dies. The court said that impairment arising from constant and continued labor, no matter how heavy or arduous it may be, does not constitute an injury within the meaning of the Workmen's Compensation Law.

In Goodman v. Industrial Commission, 135 O.S. 1, the court said that compensable injuries were "physical or traumatic injuries accidental in their origin and cause; the result of a sudden happening at a particular time" and denied compensation to a baker who died from dilation of the heart while at his bench handling dough.

Language in Malone Case

In the Malone case the court further defines its prior definitions, using the following language:

"Injury as used in the Workmen's Compensation Act, comprehends a physical or traumatic damage or harm, accidental in its origin and character in the sense of being the result of a sudden mishap occurring by chance, unexpectedly and not in the usual course of events, at a particular time and place."

In this latest definition injury is not required to be accidental in cause, as was required in the Goodman case, supra, but must only be accidental in character and result. The court distinguishes between accidental means and accidental results, holding that when something unforseen, unexpected and unusual occurs which produces an injury, that injury is accidental in character and result although it may have been the result of an intentional act on the part of the workman.

After the decision in the Franken case, labor representatives insisted upon a change in Section 1465-68 which had provided for compensation for injuries without further defining that term. At the insistence of labor, Section 1465-68 was amended by adding:

"The term 'injury' as used in this section and in the workmen's compensation act shall include any injury received in the course of, and arising out of, the injured employe's employment."

New Decision Explained

The purpose of labor's representatives was to overcome the decision in the Franken case. Whether the amendment had that result has become a matter of frequent debate, the nature of which was stated in Parletto v. Industrial Commission, 140 O.S. 12. In that case the employe claimed that the amendment broadened the court's previous definitions of injury, while the employer claimed that the only effect of the amendment was to codify the court's earlier definitions. In the Parletto case the court declined to construe the amendment and decided the case on other grounds. The Malone opinion holds that the amendment at least shows that every physical injury of whatever type which causes loss or damage to a workman is compensable *provided* it can be shown that such injury "otherwise qualifies in characteristics or essential elements as a compensable injury as that term has been heretofore and is now defined by this court."

The Malone case silences all argument that injuries are compensable only when caused by accidental means. If the event itself is accidental, that is if it is unforseen, unexpected and unusual, it need not be caused by accidental means in order that the resulting injury be compensable. But this does not mean that all injuries are compensable if they occur during working hours. The court still requires evidence of causal connection with the industrial work and hazards. The injury must arise out of and in the course of employment. It must be traumatic and physical. It must be the result of a sudden happening which must be a mishap occuring by chance, unexpectedly and not in the usual course of events. All this must take place at a particular time and place.

It is therefore debatable whether there has been any change in the law other than to end a discussion which is more or less academic. When considering the facts of particular cases the court has frequently considered the fortuitous character of the event rather than the unusual character of the causes of the event whch produced injury. Heat prostration has caused injury which has been held to be compensable notwithstanding the exposure to the heat was intentional and under Ohio law the same may be said of freezing, inhaling gases, soots, and dusts, hernia caused by coughing in the presence of fumes, infection following vaccination.

The majority of the court have not in terms overruled the definitions of the Franken, Renkel and Goodman cases. While it is to be expected that the lower courts may consider this case as authorizing a more liberal attitude in the treatment of these border line cases, it remains to be seen whether the case will be used to encourage raids upon the fund.

WAR NOTES

THREE Ohio physicians were among the first class graduated from the Army Air Corps' course of instruction in aviation medicine since it was placed under the new two-part plan. The men are Capt. Herman M. Turk, Euclid, 1st Lt. Erwin E. Ash, Forest, and 1st Lt. Attilo D. Puppel, Ashley. The two parts of this new course are the didactic, which is conducted at one Air Corps field, and the practical, which is given at three different Air Corps classification centers. Commencement exercises for this first class were held at all three centers where the training was completed.

* * *

A technical manual entitled "Guide to Therapy for Medical Officers" was issued recently by the Government Printing Office, Washington. Material on which the text is based was furnished largely by various committees of the Division of Medical Sciences of the National Research Council. Ground covered includes general medicine, surgical emergencies, medical emergencies, diagnosis and treatment of venereal diseases. chemotherapy and serotherapy in certain infectious diseases, treatment and control of certain tropical diseases, and the rickettsial diseases. Copies may be obtained from the Superintendent of Documents, Washington, for 25 cents.

* * *

Lt. Charles R. Forrester, Navy medical officer who took part in the battle of Midway Island, has written a graphic account of that action in a letter to his parents in Toledo. Lieutenant Forrester, former resident physician at Mercy Hospital, Toledo, has been on that American Pacific outpost since August, 1941. He wrote, in part:

"We gave the Japs a licking from which it will take them some time to recover. The sights I saw, the acts of heroism, all surpass any movie that has ever been filmed . . . It was hell while it was going on, but I am certainly proud that I was there."

* * *

More than 400 Cleveland physicians have already been fingerprinted and sworn in as Civilian Defense medical aides, and eventually most of the city's physicians not eligible for military duty will be assisting in the Emergency Medical Service program, it was announced recently by Dr. E. P. Judd, chairman of the OCD Emergency Medical Service Committee for Cleveland.

First Lt. Henry C. Marsico, Lorain, was one of the physicians graduated with the Twelfth Refresher Class, Carlisle Barracks, Pa., in July.

* * *

When Dr. N. Eugene Willard, Tiffin, was recently commissioned a captain in the Army Medical Corps, his father, Dr. George W. Willard, a veteran of World War I, took pleasure in pinning to his son's uniform the captain's bars which he, the elder Doctor Willard, wore while serving in the last great conflict.

* * *

Commanding officer of the officers candidate battalion at the Medical Field Service School, Carlisle Barracks, Pa., is Col. Paul R. Ensign, Toledo physician. Dr. Ensign was recently promoted to the rank of colonel.

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Lt. Col. Arthur G. King, Cincinnati physician, is stationed on New Caledonia Island and has been named medical inspector for an Army task force in the southwest Pacific area.

* * *

Bacterial warfare, feared by many as one of the barbarous eventualities of World War II, has actually been attempted by the Japanese, according to an editorial in the current issue of **The Military Surgeon.** The Chinese Embassy in Washington forwarded to the magazine a report which states that on four different occasions Japanese planes flew low over Chinese cities scattering rice and wheat grains from which were recovered bubonic plague bacilli and other harmful bacteria. "The reports of these incidents," says the editorial, "are certified by health department and hospital officials of Chinese and American nationality." Since only a few cases of the diseases developed in each of the cities thus attacked, the magazine concludes that bacterial warfare "would probably be without any effect in communities under good sanitary control."

* * *

Lt. Col. Theodore Burstein, Canton physician, has the interesting assignment of establishing a hospital at the Camp Livingston, La., detention camp for enemy aliens and prisoners of war. When home on leave recently, Colonel Burstein was quoted in the *Canton Repository* as saying:

"Our orders are that these prisoners, no matter who they are, are to receive the same treatment within the camp as the army gives its own soldiers." Present internes, he said, are principally Japanese nationals designated as dangerous by enemy alien boards and some few prisoners of war, presumably crews of captured or sunk German and Italian vessels.

* * *

Comdr. Winchell McK. Craig, native of Washington C.H., and widely known among Ohio physician, has been appointed chief of neurosurgery at the National Naval Medical Center, Bethesda, Md. Formerly on the staff of the Mayo Clinic, Dr. Craig was stationed at the Naval Hospital in Corona, Calif., before taking his new post.

* * *

Gratitude to the United States, "the country that has been so nice to me", prompted Dr. Ikbal Krishna, India-born Toledo physician, to make special efforts to enter American military service. Because India was included in the Asiatic Exclusion Act of 1924, Dr. Krishna has not been able to obtain American citizenship. However, he was so eager to enter the Army that special requests, including one from the Ohio Procurement and Assignment Committee, were made in his behalf, and consequently he was granted a captaincy. He will be eligible for citizenship after three months of Army service. Dr. Krishna came to the United States in 1921 with $3 in his pockets; in 1930 he was graduated from the University of Illinois College of Medicine, having earned bachelor's and master's degrees in the meanwhile.

* * *

Lt. Comdr. W. M. Johnston, Akron physician, is now affiliated with one of the Navy's mobile hospital units as executive officer and chief of surgery, and, at last reports, he was headed for duty overseas. Going on active duty about nine months ago, Dr. Johnston was stationed first at Great Lakes, Ill., and later served as chief of surgery at the Navy Hospital on Treasure Island in San Francisco Bay.

* * *

Capt. E. A. Smedal, Mansfield physician now at Langley Field, is one of four brothers who are all officers in United States armed services. The youngest is a Navy lieutenant at Pensacola, Fla., another is a captain of field artillery in California, and a third is a major with Army units in North Ireland.

* * *

One hundred dollars' worth of medical and surgical supplies and instruments have been contributed to the Medical and Surgical Relief Committee of America by the Women's Auxiliaries to the Belmont and Mahoning County Medical societies, according to information from the Committee's New York headquarters. Each of the Auxiliaries contributed supplies and instruments worth $50. Those given by the ladies of Belmont County were consigned to China, and those contributed in Mahoning County are to be distributed among needy hospitals in the United States.

* * *

Making sure that his services would be used in some branch of the armed forces, Dr. C. M. Dougherty, New Philadelphia, applied for commissions in both the Army and Navy medical corps, according to press reports. He was offered appointment by both within a few days of each other. He decided to accept a majority in the Army.

* * *

Dr. Herbert Harris, formerly of Cincinnati and Dayton and more recently instructor of orthopedic surgery at the University of Michigan Medical School, has been commissioned a major in the Army medical corps and appointed chief of the orthopedic service of the Harper Hospital unit, Fort Custer, Mich., according to press reports.

* * *

At least two Ohio physicians had no trouble deciding what to do with their practices after entering military service. They turned them over to their wives!

The four physicians who figure in this saga interned together at Cleveland City Hospital. They are: Dr. Wiley Forman and Mrs. Forman, who is known professionally as Dr. Elizabeth Barnes; and Dr. James Stephens and his wife, Dr. Jeanne Hibbard Stephens. The Formans are of Columbus and the Stephens reside in Oberlin. Dr. Barnes (Forman) will perform her husband's duties as an internist and diagnostician in addition to her part-time work as instructor in pediatrics at Ohio State University College of Medicine. And Dr. Hibbard (Stephens) will take over her husband's general practice in Oberlin.

* * *

Dr. Robert W. Bachmeyer, a native of Cincinnati and graduate of the University of Cincinnati, has been appointed equipment officer in the section on field casualty service of the Medical Division, Office of Civilian Defense, Washington. Prior to his appointment he served as assistant director of the Hospital for Ruptured and Crippled, New York (known now as the New York Hospital for Special Surgery).

* * *

Dr. Lloyd H. Gaston, former chief of the bureau of child hygiene and later chief of the bureau of adult hygiene in the Ohio State Department of Health, has been commissioned in the United States Public Health Service and assigned to the headquarters staff in Washington. Dr. Gaston also served at one time as assistant health commissioner for Mansfield and Richland County. Prior to his commissioning he was serving as deputy state chief of Emergency Medical Service in the Michigan Office of Civilian Defense.

* * *

Leo F. Ey, for many years chief of the laboratory division of the Ohio State Department of Health, has been commissioned a captain in the Army sanitary corps and assigned to a station at Santa Barbara, Calif. During World War I, Capt. Ey was a teacher at Yale Army laboratory, New Haven, Conn.

* * *

Within a fortnight after he was commissioned a captain in the medical corps, Dr. F. H. Mayfield, Cincinnati, decided that his pet Dobermann Pinscher, "Trudie," should join him in the nation's service. So Trudi was enlisted in the army of Dogs for Defense, Cincinnati's first canine commando, and is now in training at Fort Royal, Virginia.

* * *

If you've wondered who will provide medical service for the WAAC's, here's the answer straight from the Secretary of War. Mr. Stimson recently told a press conference that the Women's Army Auxiliary Corps may, as it increases, induct female medical officers, or else they will be contracted at the rate of five for every thousand women.

* * *

One of the medical officers with the United States Army in North Ireland is 1st Lieut. Richard W. Eckstein, Cleveland, a recent graduate of Western Reserve University School of Medicine.

* * *

England has been able to report general improvement in the national health during the war with two notable exceptions. These are cerebrospinal fever, which is considered a wartime disease, and pulmonary tuberculosis among young women. Cases of cerebrospinal fever rose from 1500 in 1939 to 12,771 in 1940, but mortality was low. Pulmonary tuberculosis in young women has also increased since the war started, as it did in World War I.

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Himself a licensed pilot, Dr. P. N. Mutschmann, Warren, was recently commissioned a major in the Army Air Corps and ordered to report to Atlantic City, N.J.

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Major W. W. Towne, U.S. Public Health Service, sanitary engineer, has been assigned to duty with the Medical Division staff as sanitary engineer for the Fifth Civilian Defense Region, with headquarters at Cleveland.

Licensed Through Endorsement

Twenty-eight physicians were licensed by endorsement (reciprocity) at the July meeting of the State Medical Board. Following are their names, cities, and schools of graduation:

Frederick W. Barnes, Jr., Cincinnati, Johns Hopkins University; Joseph O. Beatty, Cleveland, University of Oregon; Irving Besserglick, Cleveland, State University of Iowa; Wm. H. Bonser, Toledo, Duke University; Walter H. Brown, Jr., Akron, University of Louisville; Harold D. Clayberg, Chillicothe, University of Illinois; Lena Marie English, Kent, Woman's Medical College of Pennsylvania; Anna H. Entz, Dayton, University of Kansas; Robert E. Eyssen, Cleveland, McGill University; Leon A. Frankel, Cleveland, Hahnemann Medical College; Wesley L. Furste, II, Cincinnati, Harvard University; Harry C. Harris, Grafton, University of Illinois; Flora Herman, Columbus, Woman's Medical College of Pennsylvania; Bradley Hull, Cleveland, University of Buffalo; David B. Kimmelman, Columbus, Jefferson Medical College; Harold C. Klein, Cleveland, Georgetown University; Wm. F. Kubicek, Cleveland, St. Louis University; Benjamin L. Lehman, Hamilton, Louisiana State University; Milton L. Marten, Euclid, Jefferson Medical College; Wm. J. Miller, Columbus, Indiana University; Robert F. Miller, Bellevue, Loyola University; Edwin L. Mollin, Akron, University of Colorado; Frank A. Oldenburg, Akron, Marquette University; George A. Parker, Lake Plum, University of Vermont; James H. Smith, Akron, University of Pennsylvania; Mendel W. Smith, Warren, University of Chicago; Ruth Ellis Snyder, Ravenna, Woman's Medical College of Pennsylvania; Edgar H. White, Cincinnati, Northwestern University.

Nurses Aides Rules Revised

Modified rules for approving hospitals in target areas such as Ohio for the training of Nurses Aides have been issued by the Office of Civilian Defense. In a bulletin from the Chief Medical Officer, Region Medical Officers are given instructions for evaluating target area hospitals not on the approved list of the American College of Surgeons or registered with the American Medical Association. In communities in target areas where such hospitals must be utilized to meet the demands of Nurses Aides they may be selected in a conference attended by representatives of the state hospital association, the state boards of nurse examiners, the state Chief of Emergency Medical Service and his nurse deputy, and a nursing consultant from the Area Office of the American Red Cross.

Ashtabula—Dr. P. J. Collander, honorary vice vice consul for Finland for the territory between New York City and Detroit, has received official notification from the Finnish Government to close the office and wind up its affairs. An American citizen since 1916, Dr. Collander was appointed to the vice consulate in 1931. He has been practicing medicine in Ashtabula for 32 years, and was a captain in the U. S. Army in World War I.

Important Data on Medical Education Found in Annual Council Report; Adjustments to the War Discussed

Approved medical schools in the United States will graduate 21,029 physicians in the next three years, an all-time record for that period of time, according to the 42nd annual report of the Council on Medical Education and Hospitals of the American Medical Association. This total is 5,082 higher than the number which would have been graduated if the accelerated wartime program had not been adopted.

At the same time it published this report, *The Journal of the American Medical Association* urged editorially that every precaution be taken to protect the health of medical students under the speed-up program.

"Medical educators have for years been concerned because of the frequent 'physical breakdowns' among the medical students of this country," the editorial said. "With the adoption of the accelerated program of medical education, students will be called on to accomplish in three years what previously has caused many breaks in health when spread over a period of four years. Thus it is especially appropriate at this time to emphasize that medical schools should do everything possible to protect the health of their students, not alone in the best interests of the students themselves, but as a part of the responsibility which medical schools are assuming in preparing these young men to serve efficiently as physicians either with the armed or with the civilian forces."

STANDARDS NOT LOWERED

All but four of the 68 approved medical schools in the United States have adopted accelerated programs, the report shows, but eligibility requirements for admissions have not been lowered from the present minimum standards set by the Association of American Medical Colleges and the Council on Medical Education and Hospitals.

The estimated number of deaths of physicians in the United States is 3,460. Using this figure as a basis for calculation, the report shows that under the 12-month curriculum plan there will be approximately two physicians graduated for each one removed by death during the next two years.

According to the report, licensure requirements in 41 states, Alaska, Puerto Rico, and the District of Columbia have been so modified as to permit licensing of graduates of accepted schools who complete the accelerated courses. In Georgia, Illinois, Kansas, Michigan, Nebraska, New Jersey, and South Carolina medical practice acts will probably have to be modified by legislative action before graduates under the accelerated program may obtain licenses to practice.

FINANCIAL PROBLEMS CONSIDERED

Two steps have been taken to meet the financial problem imposed on some students by the necessity for studying 12 consecutive months without vacation, the Council reports. Congress appropriated $5,000,000 for the purpose of making loans to students taking the wartime speed-up courses, and the W. K. Kellogg Foundation has offered $10,000,000 to each medical school to be used as scholarships and loans for this purpose and $5,000,000 to basic science schools which give only the first two years of the medical course.

Ohio Statistics in Report

The following facts about medical education pertaining to Ohio are brought out in the 42nd annual report of the Council on Medical Education and Hospitals:

All three medical colleges in Ohio—Ohio State University College of Medicine, University of Cincinnati College of Medicine, and Western Reserve University School of Medicine—offer accelerated programs of training and will accept entrants and graduate physicians every nine months from June, 1942, through June, 1945.

Of the 24,884 students enrolled in medical schools in the United States and Canada last year, 904 were studying at the three Ohio schools. Graduating classes of the Ohio institutions totaled 216.

Ohio was given as the birthplace of 1,127 medical students of the United States and Canada, this total giving the state fourth place in the list of states furnishing the most future physicians. Of the 904 studying in Ohio, 288 were born in other states, and 616 were native Ohioans.

Accompanying the report are statements from the surgeons general of the Army, Navy, and U. S. Public Health Service explaining the relationship of their various agencies to medical education. In these significant information is given regarding enlistment of medical and premedical students.

PROTECTION FROM THE DRAFT

Referring to occupational deferment from the draft, Surgeon General James C. Magee, of the Army medical corps, explains the program under which medical and premedical students are deferred until completion of one year of internship. Premedical students in universities and colleges with acceptable standards may join the Enlisted Reserve Corps under the "pre-induction training plan" by passing a qualifying examination. Details may be obtained from the dean of the medical school concerned or from the commanding general of the corps area in which it is located.

On completion of the pre-medical course and matriculation in accredited medical schools, these students may be discharged from their enlistment and commissioned as second lieutenants in the Medical Administrative Corps. This commission obtains until three months before graduation in the senior year of the medical course, at which time the students are eligible for commissions as first lieutenants in the Medical Corps. Those commissioned in this way are not ordered to active duty until completion of 12 months of internship.

Rear Admiral Ross T. McIntyre, of the Navy Medical Corps, explains that first and second year premedical and predental students are enlisted in Class V-1 of the Naval Reserve. On completion of the second year they may be transferred to Class V-7, and when accepted for admission by an accredited medical school they are eligible for appointment to Class H-V (P). If a student in any of these classes fails to qualify in medicine, he retains his reserve status as an enlisted man in the Navy and is eligible for immediate service. While in medical school, the student is an ensign in Class H-V (P) of the Naval Reserve, which was created specially to accommodate students.

Surgeon General Thomas Parran, of the Public Health Service, explains the appointments to the regular service and the reserve which are open to young physicians. There is no classification in this branch open for medical and premedical students.

STATISTICS FOR PAST YEAR

The report proper shows in detail the accelerated programs, including entrance and graduation dates of all schools for the next three years. It also gives detailed data about students enrolled in medical schools of the United States and Canada, classified by sex, residence, college, and class.

During the 12 months preceding July 1, 1942, the degree of Doctor of Medicine was awarded to 5,702 graduates, of whom 539 had studied in Canadian schools and the balance in the United States. In the 85 medical schools in the United States and Canada during the year there were 6,914 freshmen, 5,992 sophomores, 5,640 juniors, 5,445 seniors, and 515 fifth and sixth year students in Canada.

Male students in the United States numbered 20,867, of whom 4,884 were graduated. There were 1,164 women enrolled, of whom 279 were graduated. In Canadian schools the men totaled 2,684 and the women 169. Of this number 513 men and 26 women were graduated.

Medical school fees, according to the report, increased slightly during the year past. The average resident fee charged by medical schools in the United States was $395, whereas it was $386 in 1941 and $378 in 1940.

OPPORTUNITIES FOR INTERNS

The report shows that in February, 1942, 732 hospitals approved for intern training offered 7,228 internship appointments annually. By July, 1942, 544 hospitals of that group had indicated that they were adjusting their internship schedules to coincide with the staggered graduation dates of the accelerated medical courses. Effects of the war are noted in the fact that there is a reduction in internships running longer than 12 months. One-year appointments are now offered by 711 hospitals as compared with 608 which reported one-year appointments available in February.

In the section of the report devoted to details about medical schools changes in the status of two are noted. Rush Medical College, Chicago, terminated its undergraduate courses this year, having enrolled only seniors for the 1941-1942 session. The medical school of Wake Forest College was moved to Winston-Salem, N. C., in the summer of 1941 and is now known as the Bowman Gray School of Medicine of Wake Forest College. Previously only a school of basic science, it now plans to give a four-year course and award the degree of Doctor of Medicine. A junior class was enrolled there in June under the accelerated program, and a senior class will be enrolled next year.

The 1,164 women enrolled in medical colleges of the United States last year constituted 5.3 per cent of the total enrollment, the report shows, and this figure has been fairly static in recent years. Of these, 1,050 attended coeducational institutions, and 114 were enrolled at Woman's Medical College of Pennsylvania. Of the 77 medical schools in the United States, six do not admit women.

SPECIALTY BOARDS

In a special section of the report concerned with specialty boards it is pointed out that these boards have not lowered their requirements because of war conditions but that most of them will give special credit for military service. Detailed information on this point is presented. Data on 15 specialty boards in the following fields are presented in this section of the report: Anesthesiology, dermatology and syphilology, internal medicine, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, pathology, pediatrics, plastic surgery, psychiatry and neurology, radiology, surgery, and urology. Part of this section of the report is also devoted to the Advisory Board for Medical Specialties.

The report stresses the importance of opportunities for continuation study offered to practicing physicians, particularly in fields directly connected with the war effort. In 39 states (including Ohio) some form of post-graduate or refresher training is provided, and in 19 states the training was planned so as to be near the physicians' home communities. Approximate attendance in courses of this type totaled 37,600 in the last year, whereas the figure for 1940-1941 was 43,621. Expanding medical services in the armed forces was given as the chief reason for this decrease.

Red Cross Announces Expansion Of Blood Procurement Project

Expansion of the Red Cross blood procurement project from an original 900,000 donors during the current fiscal year to a minimum of 2,500,000 has been requested by the Surgeons General of the Army and Navy, the Red Cross has announced. This almost three-fold increase will require approximately 50,000 volunteer donations a week..

In addition to dried plasma, blood collected is to be processed into human serum albumin, also for use in transfusions. The Navy is particularly interested in this serum because it requires less storage space than plasma.

Serum albumin as a blood substitute is a recent development for which Dr. Edwin J. Cohn, professor of physical chemistry, Harvard Medical School, is largely responsible. The process at present is regarded as a military secret, but it may be said that albumin is a protein extracted from blood, and some of the processing is conducted at temperatures below 32 degrees Fahrenheit. As is the case with powdered plasma, blood used in preparing serum albumin must be shipped in refrigerated containers and must reach the laboratory within 24 hours after being drawn.

Unlike dried plasma, serum albumin, when prepared for shipment, is in solution. Nothing need be added before the transfusion is given. A unit of the serum consists of 25 grams of albumin dissolved in 100 cc. of physiological salt solution. Albumin is put up in glass vials with rubber stoppers at both ends in which tubes are inserted and the transfusion given intravenously. The vial and necessary tubes and needles are enclosed in a tin container about six inches long by two inches in diameter. Etched on each vial are complete directions for giving a transfusion.

Serum albumin, according to present indications, will last for years without deterioration. It does not require refrigeration, and can be kept at temperatures ranging from slightly above freezing to approximately as high as 120 degrees Fahrenheit. It requires 3.6 pints of blood to obtain one unit of plasma. Offsetting this disproportion somewhat is the fact that, generally speaking, a unit of serum albumin is equivalent to two units of dried plasma as a blood subsitute. The serum will be used to supplement rather than replace dried plasma, as both products have certain distinctive advantages.

As of June 30 last, donations to the Red Cross blood procurement project for the armed forces totalled 461,493, representing more than 80,000 donations above the 380,000 requested for delivery by that time by the Army and Navy. The 18 donor centers participating in the national blood procurement project are operated by Red Cross chapters in New York, Philadelphia, Baltimore, Rochester, Buffalo, Boston, Brooklyn, Cincinnati, Cleveland, Chicago, Detroit, Pittsburgh, Indianapolis, St. Louis, Milwaukee, Los Angeles, San Francisco, and Washington, D. C.

Blood Slides Must Accompany Lead Poisoning Claims

Stained blood slides and a report of the amount of urinary lead are now required to accompany claims for cases of lead poisoning filed under the Occupational Disease Law of Ohio, it was announced recently by Dr. R. M. Andre, supervisor of the State Industrial Commission's medical section. This is in accordance with a resolution passed by the Commission.

The blood slides, properly identified, should be mailed directly to the medical section of the Industrial Commission. The quantitative urinary lead determination should be expressed either in per cent per liter or milligrams per liter.

Physicians who have in the past submitted a number of claims for lead poisoning have been notified of this new requirement directly by Dr. Andre. He has requested *The Journal* to notify the profession generally through its columns.

Federal Hospital Openings

To fill appointments for rotating internship and for psychiatric residents in St. Elizabeths Hospital, federal institution for the treatment of mental disorders, Washington, D. C., the United States Civil Service Commission is accepting applications for Junior Medical Officers, which positions pay $2000 a year. Applicants for the rotating internship must be fourth year students in a class A medical school, and applicants for the psychiatric residency must have completed one year of internship. No written test is required, and there are no age limits.

In Memoriam

Edwin E. Armstrong, M.D., Sylvania; Toledo Medical College, 1897; aged 70; former member of the Ohio State Medical Association and the American Medical Association; died July 26. Dr. Armstrong attended Olivet College before studying medicine in Toledo. He practiced first in Grand Rapids, Ohio, later locating in Sylvania. Active in Masonry, he was also known as a musician and a Bible student. His survivors include his widow, two sons, and a grandchild.

Alden Morland Bush, M.D., Toledo; University of Michigan Medical School, Ann Arbor, 1909; aged 59; former member of the Ohio State Medical Association and the American Medical Association; died July 15. Dr. Bush had retired from practice.

Walter Charles Crouch, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1894; aged 69; died July 4. Dr. Crouch served as a captain in the Army Medical Corps during the First World War and was on duty overseas. He was a 32nd degree Mason. His widow, two sons, and a sister survive.

Clarence Henry Frederick, M.D., Lorain; University of Cincinnati College of Medicine, 1923; aged 44; member of the Ohio State Medical Association and fellow of the American Medical Association; died July 14. Dr. Frederick had applied for a commission in the Navy medical corps and died unexpectedly of a heart ailment the night before he was to have taken his physical examination. He was a 32nd degree Mason and active in that order and was formerly president of the staff of St. Joseph's Hospital, Lorain. Survivors include his widow, one son, one daughter, his mother, two brothers, and two sisters.

Jay Clement Johnson, M.D., Canal Winchester; Ohio Medical University, Columbus, 1903; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died July 10. Dr. Johnson practiced in Canal Winchester for the last 24 years, and previously he had practiced in Cardington. He was active in the American Legion and the Masonic Lodge. His survivors are his widow, a son, a daughter, a brother, and four grandchildren.

Howard H. McClaran, M.D., North Baltimore; University of Tennessee College of Medicine, Memphis, 1893; aged 75; died July 13. Dr. McClaran had practiced in Bloomdale for 13 years, and he was former mayor of the village. For 35 years he practiced in Toledo, retiring in 1940 when he moved to North Baltimore. He is survived by his son, with whom he resided.

Charles R. Pontius, M.D., Fremont; Starling College, Columbus, 1884; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died July 16. Oldest practicing physician in Fremont, Dr. Pontius was a medical pioneer in Sandusky County. He was the first to use the X-ray in the county and was one of the early examining physicians for the Ohio Industrial Commission. Active in religious circles, he was a charter member of the board of trustees of Hayes Memorial church and served on the board with ex-President Rutherford B. Hayes. Surviving are two daughters, a sister, a brother and five grandchildren.

Raymond A. Ramsey, M.D., Columbus; Western Reserve University School of Medicine, 1912; aged 56; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 19. Dr. Ramsey had practiced in Columbus for 26 years and was associated throughout that time with Dr. Andre Crotti. He held memberships in the American Society for the Study of Goitre and the Society of Endocrinology. He was also a charter member of Alpha Kappa Kappa professional fraternity at Western Reserve. He served on the staffs of Grant, Children's, University, Mt. Carmel, and St. Francis hospitals in Columbus, and he was active in the medical branch of civilian defense agencies. Surviving are his widow and three sons.

Nicholas Edward Woessner, M.D., Huron; Northwestern University Medical School, Chicago, 1893; aged 73; member of the Ohio State Medical Association and the American Medical Association; died July 31. Dr. Woessner retired from practice last year after an active career of 45 years in Huron. He was a member of the Masonic Order, and belonged to the Grange. Survivors include his widow, a daughter, a brother, and a sister.

Wolf Zapolan, M.D., Cleveland; Ohio State University College of Medicine, 1939, aged 27; died July 19. Dr. Zapolan was a lieutenant in the Army Medical Corps and was attached to the Cleveland induction station.

The lowest death rate in the history of the United States was recorded in 1941, according to a recent announcement of the U.S. Census Bureau. Total number of deaths for the entire nation was 1,395,907. Provisional mortality statistics for the year show a death rate of 10.5 per 1000 population. The 1940 rate was 10.8. There were 21,362 fewer deaths in 1941 than in 1940.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

HIGHLAND

"Skull Changes After 40" was the topic of Dr. P. T. Knies, Columbus, when he addressed the Highland County Medical Society at its monthly meeting August 5 at the home of Dr. R. R. Remark, Sinking Spring. Members of the Adams County Medical Society were guests at the meeting.—News clipping.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

CRAWFORD

Members of the Auxiliary to the Crawford County Medical Society are sponsors of the Red Cross surgical dressing project in Bucyrus. Mrs. Samuel J. Campbell, who is directing the program, took a special training course in the preparation of surgical dressings given by the Red Cross in Dayton. Monthly quota of the Crawford County group is 20,000 dressings.—News clipping.

MARION

A carefully planned program of education and social activities will be launched by the Auxiliary to the Marion Academy of Medicine with a style show and bridge benefit at the Marion Country Club September 19. The program committee, consisting of Mrs. Fillmore Young, chairman, Mrs. C. J. Altmaier, and Mrs. L. L. Roebuck, has drawn up a program for 1942-43 which will include meetings devoted to reviews of books on modern medicine, films and traveling exhibits of a health education nature, and talks by physicians on such topics as tuberculosis, influenza, sanitation, communicable disease control, and venereal disease.—News clipping.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

TUSCARAWAS

Monthly meeting of the Tuscarawas County Medical Society was held August 13 at Hotel Reeves, New Philadelphia. Dr. John Srail, new head of the Tuscarawas County Tuberculosis Sanatorium, gave an interesting account of modern conceptions in the diagnosis and treatment of tuberculosis.

The society's Auxiliary met that evening at the home of Dr. and Mrs. Herbert Van Epps, Dover. Dr. J. W. Calhoun, Uhrichsville, discussed "The Relation of the Woman's Auxiliary to the County Medical Society."—D. M. Caramella, M.D., Secretary.

On July 15 members of the society and their families attended the annual picnic in the gardens of Mr. and Mrs. D. V. Heck, Gnadenhutten.—News clipping.

Eighth District

(COUNCIL: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Members of the Guernsey County Medical Society entertained their wives at a luncheon August 6 at the Berwick Hotel, Cambridge. Mr. S. C. Carnes, attorney, was guest speaker.—News clipping.

Tenth District

(COUNCILOR: H. M. CLODFELTER, M.D., COLUMBUS)

FRANKLIN

The board of directors of the Auxiliary to the Columbus Academy of Medicine met July 31 at the home of Dr. and Mrs. R. S. Fidler to discuss Auxiliary business.—News clipping.

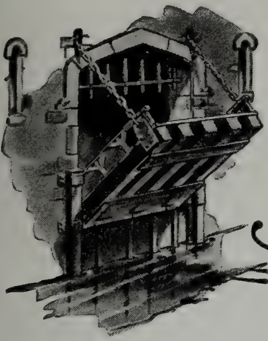
KNOX

Members of the Knox County Medical Society who have recently been commissioned in the Army Medical Corps were guests of honor at a dinner meeting of the society July 14 at the Elks' dining room, Mt. Vernon. Those who were thus honored, each of whom was given a going-away gift by their colleagues, were: Dr. Robert Eastman, Dr. J. C. Drake, Dr. Charles Tramont, Dr. Robert Hoecker, and Dr. J. L. Baube, of Mt. Vernon; Dr. Charles Baube, Centerburg; and Dr. Raymond Lord, Fredericktown.—News clipping.

Conference on Venereal Disease Control In Wartime

Venereal disease and America's war effort will be discussed by high-ranking medical officers of the War and the Navy Departments, prominent physicians, health officers and others at a Conference in Hot Springs National Park, Arkansas, October 21-24, 1942, at the Arlington Hotel.

The Conference will be held under the auspices of the United States Public Health Service in conjunction with the Eighth Annual Meeting of the American Neisserian Medical Society. State and local health officers, venereal disease control officers, practicing physicians, and all others engaged in venereal disease control activities are urged to attend.



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Recent Opinions of Attorney General of Interest to Ohio Doctors

Among recent opinions of Attorney General Thomas J. Herbert are several of interest to physicians. The syllabus of each follows:

No. 5291. 1. Under the provisions of Sections 3476, 3480, 3480-1 and 3484-2, General Code, townships and cities are authorized to arrange for hospital care for indigents found therein whether or not such indigents have a legal settlement within the township or city wherein the services are rendered.

2. In instances where private hospitals render hospital services to indigents having a legal settlement within the township or city wherein the services are rendered, such township or city is liable in such amount as the trustees or proper officers deem to be just and reasonable when proper notice has been given in accordance with the terms of Section 3480, General Code.

3. Where an indigent has his legal settlement in a township, city or county, but other than the township or city wherein such person is found and hospital services rendered, the private hospital rendering such services may notify the trustees or proper officers of the city wherein such services are rendered. Thereupon the township or city shall be liable for the services thereafter rendered such person in such amount as such trustees or proper officers determine to be just and reasonable. This determination constitutes the established rate of the township or city, which rate may be recovered from the township, city or county of legal settlement by compliance with the provisions of Sections 3480-1 or 3480-2, General Code.

* * *

No. 5308. 1. A tuberculosis clinic, as that term is used in Section 3139-19, General Code, may be defined as an institution or station under the control of the board of county commissioners where persons suspected of having or suffering from tuberculosis may come for examination, diagnosis and expert advice or treatment.

2. County commissioners of counties which do not operate county tuberculosis hospitals, or which are not part of a district in which tuberculosis clinics are maintained, may lawfully employ public health nurses for the prevention, cure and treatment of tuberculosis, regardless of whether tuberculosis clinics are established and maintained by such county commissioners.

* * *

No. 5311. The board of trustees of a municipal hospital, having under the city charter the entire control and management of such hospital and the authority to establish such rules for its government and admission of persons to its privileges as it deems expedient, may legally expend funds under its control for services rendered by a credit rating association, either in the form of a direct charge for such services or by the periodical payment of a fixed amount therefor.

* * *

No. 5384. 1. Since the enactment of Sections 3391 to 3391-12, both inclusive, of the General Code (118 O.L. 710), boards of township trustees, as such, have no power or authority to pay a physician and surgeon for professional services rendered by him as such physician and surgeon, to an indigent person having a legal settlement in their township; services of a physician being defined as poor relief in Section 3391 of the General Code.

2. The services of a physician and surgeon, when rendered to an indigent person under circumstances defined in Section 3391-2 of the General Code, constitute "poor relief", and if such person has a legal settlement in a township and outside of a city, such "poor relief" should be furnished by the county commissioners as the local relief authority.

Industries Asking for Too Many Deferments, Bulletin States

"Selective Service officials point out that industry has in many cases lost sight of the reason for occupational deferments. These provisions are set up in order to aid industry in adjusting its production organization to meet the conditions created by the tremendous demands upon the manpower of the nation. Occupational deferments should be considered only as a loan of a particular registrant to industry for a short period of time, because the industrial situation seems to warrant that loan.

"The following practices of some employers, according to Selective Service, are *not* aiding the war effort:

1. Requesting renewed deferments for men, without making any effort to replace them at the end of the original deferment period.

2. Requesting deferments for men 21 to 25 years of age who have limited educational or work histories.

"3. Failure on the part of management to keep informed on the Selective Service status of their employees.

"4. Waiting until a necessary man is called for induction, before any request for deferment is made.

"5. Training young men who are potential 1-A material, rather than reorganizing their training program to provide for training older workers, physically handicapped persons and women.

"To cooperate fully Selective Service suggests training of older men, upgrading of competent employees, utilization of women in all possible positions, keeping accurate status of every key employee and contact and cooperation with local draft boards."—*Ohio Manufacturers' Association Bulletin, August 5, 1942.*

Grant for Paralysis Research

A grant of $1500 has been awarded to the Marquette University School of Medicine, Milwaukee, Wis., by the National Foundation for Infantile Paralysis, it was announced recently by Basil O'Connor, president of the foundation. The money, part of the funds raised by the President's Birthday celebrations, will be used to study the relationship of nutrition to the morphology and physiology of the neuromuscular apparatus in skeletal muscle.

OUR JOB

We people of the United Nations have a considerable job on our hands. We must win the war. All that makes life worth living is at stake. We cannot all serve with the armed forces, but we can all do our bit. There is a job for everyone of us.

Much has been written about Civilian Morale and its importance to our war effort. What is Civilian Morale? In its best sense, is it not a feeling of confidence, shared by people with mutual beliefs and hopes and interests, that sustains a nation during any period of emergency or great stress? Is it not, in fact, an expression of national character?

At no time in our history has there been a greater need for confidence; confidence in our leaders, in our armed forces, in our physical and spiritual resources, in ourselves—confidence in all of these forces working together towards Victory, towards the preservation of those ideals and practices of liberty, justice, individualism and decency which are essential to our way of life, to our fundamental heritage.

Let those of us who for one reason or another cannot serve with the armed forces give as much of our time as possible to Civilian Defense, as much of our money as possible to the buying of War Bonds and Stamps, and every vestige of our national spirit, pride, determination and courage to the winning of the war. That is our job!

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Do You Know - - -

Among the successful candidates in the August primary election were the following Ohio physicians: Dr. E. LeFever, Glouster, Republican nominee to represent Athens County in the Ohio House of Representatives; Dr. F. R. Stewart, Ironton, Republican nominee to represent Lawrence County in the Ohio House of Representatives, and Dr. E. C. Alexander, Castalia, Democratic nominee for Congress from the 13th Ohio District. Drs. LeFever and Stewart are candidates for re-election.

* * *

Dr. Fred L. Adair, chairman of the department and professor of gynecology, University of Chicago School of Medicine, and chief of service at the Chicago Lying-In Hospital, will retire on October 1, having reached the age of retirement. He will be succeeded by Dr. William J. Dieckmann, associate professor in the department.

* * *

The American Roentgen Ray Society will hold its annual meeting in the Palmer House, Chicago, September 15-18, instead of in Atlantic City. Haddon Hall, where the meeting was to be held, has been taken over by the government.

* * *

Officers of the Ohio State Radiological Society include: Dr. U. V. Portmann, Cleveland, president; Dr. Edgar C. Baker, Youngstown, vice-president and Dr. Justin E. McCarthy, Cincinnati, secretary-treasurer.

* * *

Dr. Karl D. Figley, Toledo, is the president-elect of the Association for the Study of Allergy.

* * *

Because of the war and the strenuous demands upon physicians, the Board of Trustees of the Washington State Medical Association cancelled the 53rd Annual Meeting of the Association scheduled for August 17-19. A meeting of the House of Delegates will be held in September to conduct the official business of the Association.

* * *

The National Tuberculosis Association announces a decline in the 1941 tuberculosis rate from 46 per 100,000 population in 1940 to 44 per 100,000 last year. Deaths from tuberculosis in the United States last year numbered 59,173, with 105,714 new cases being reported.

* * *

Dr. M. P. Mahrer, Youngstown, won a prize for his water color, "Dusk on the Monongahela", shown at the Fifth Annual Exhibition of the American Physicians Art Association, June 8-12, at Atlantic City.

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GYNECOLOGY—Two weeks intensive course will be offered starting October 5th. Clinical and Diagnostic courses every week.

OBSTETRICS—Two weeks Intensive Course will be offered starting September 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special courses every week.

OPHTHALMOLOGY—Two weeks intensive course will be offered starting September 28th. Five weeks course in Refraction methods starting October 19th. Informal course every week.

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Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Juanita Mae McCracken and Dr. Stephen J. Alexander, Dayton; Miss Eloise Davis and Dr. Willard Allison, Oak Hill; Miss Barbara Neal, Buffalo, N. Y., and Dr. Paul Beeson, Wooster; Dr. Emily Behrman and 1st Lt. Richard Buchanan, Cincinnati; Miss Stella Agnes Froncek and Dr. Franklin A. Benes, Cleveland; Miss Jeanne Elizabeth Sanzi, Ann Arbor, Mich., and Dr. Thomas H. Bottomly, Cleveland; Miss Evelyn Becker and Dr. Charles F. Clark, Columbus; Miss Betty Williams and Dr. Stanford S. Daw, Zanesville; Miss Eleanore Iman, Crestline, and Dr. Donald W. Dewald, Cleveland; Miss Mildred Been, Youngstown, and Dr. Manny Fertman, Columbus; Miss Alice Marguerite Boucherle and Dr. Richard Renner Goldcamp, Youngstown; Miss Berneda Holfinger, Covington, and Dr. Richard C. Hiestand, Springfield; Miss Eunice Tuecke and Dr. James F. Jones, Cleveland; Miss Fannie Rothbaum, Hamilton, and Dr. Louis Levin, Cincinnati; Miss Helen Gallagher, Louisville, and Dr. William Lieser, Canton; Miss Gladys Pino, Baton Rouge, La., and Capt. Richard Lucas, Columbus; Miss Lucile A. Lang, LaGrange, and Dr. Maurice I. Miller, Fairfield; Miss Georgiana Rew, North Kingsville, and Dr. Allen C. Neiswander, Pandora; Miss Kathaleen Corcoran and Dr. Charles R. Goodwin, Cleveland; Miss Ernestine Fox, Cincinnati, and Dr. Philip C. Rond, Columbus; Miss Betty Tisdall, Cincinnati, and Dr. Edmond K. Yantes, Philadelphia, Pa.; Miss Ruth Kendell, Covington, and Dr. John M. Wilkins, Marysville; Miss Alice S. Gerlinger and Dr. Harry P. Ulicny, Toledo; Miss Jane Hoover, Mineral City, and Dr. John Smythe, Cleveland; Dr. Margaret Stringfellow, Haverhill, Mass., and Dr. Thomas B. Shipley, Canton; Miss Dorothy Eberhart and 1st Lt. Paul M. Seebohm, Shaker Heights; Miss Jule Buswell Keyes and Dr. Edward S. Ray, Cleveland; Miss Lorena May Ryman, Lewisville, Ind., and Dr. Marion R. Scheetz, Coshocton.

Ohio Physicians Honored

Three Ohio Physicians were named to important posts in the American College of Chest Physicians at the annual meeting of that organization held in Atlantic City recently. Dr. John H. Skavlem, Cincinnati, was elected one of the governors of the college, Dr. Joseph C. Placak, Cleveland, was named chairman of the Board of Regents, and Dr. Louis Mark, Columbus, was elected a regent. At a recent meeting of the Ohio Chapter of the college the following officers were elected: Dr. David W. Heusinkveld, Cincinnati, president; Dr. Norbert S. Greene, Brecksville, vice president; and Dr. Joseph B. Stocklen, Cleveland, secretary-treasurer.

Hospital Care Plans Show Steady Enrollment Increase

Membership in group hospital service plans continues to expand in spite of industrial dislocations of wartime, and more than 1,000,000 persons joined approved plans in the first six months of 1942, according to figures published in **Hospitals**, official publication of the American Hospital Association. Membership in Ohio hospital service associations totaled 1,292,343 on July 1, the magazine says. The following figures show total enrollment of each plan in Ohio, listed by headquarters city, at the close of the first half of this year: Akron, 74,284; Canton, 31,834; Cincinnati, 253,786; Cleveland, 617,512; Columbus, 49,024; Lima, 14,319; Portsmouth, 6867; Toledo, 143,017; and Youngstown, 101,700. Total national enrollment in such plans is approximately 9,000,000.

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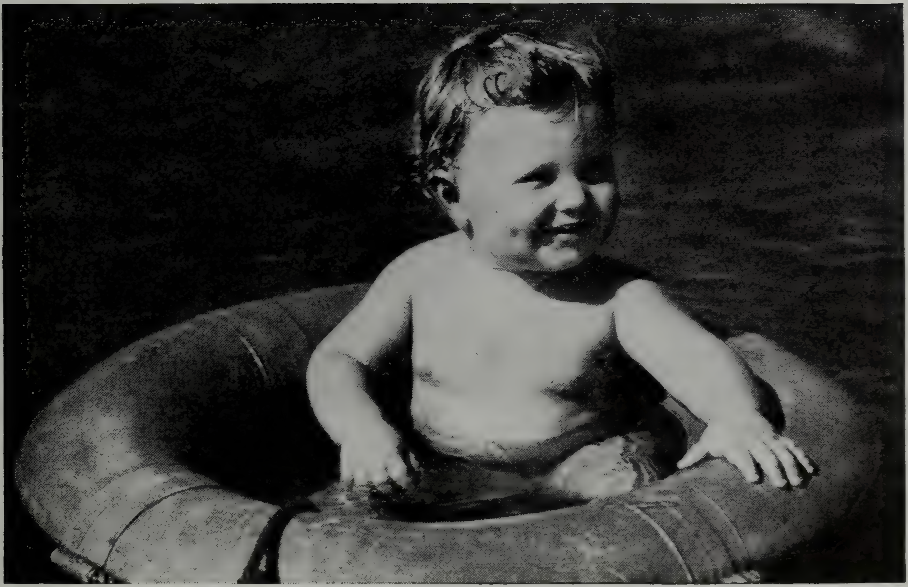

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Biolac is prepared from whole milk, skim milk, lactose, vitamin B_1, concentrate of vitamins A and D from cod liver oil, and ferric citrate. It is evaporated, homogenized, and sterilized.

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Workmen Compensation Claims Filed In July Set New Record

More claims for Workmen's Compensation were received by the State Industrial Commission during July than in any other month in the history of the Commission, Chairman Will T. Blake has reported.

Employes of the Commission's claims section are working overtime to keep abreast of the increase in injury claims received from workers in Ohio's production-gorged war industries, the Commission chairman said.

July claims numbered 30,160, the report disclosed, 125 more than the previous record total for one month, received in October, 1941. The July figure is an increase of 14.2 per cent over the number of claims received in the same month of 1941, and 72.6 per cent above the July, 1940, total.

The Commission has received 179,802 industrial accident claims in the seven months of 1942 covered by the report, an increase of 17.5 per cent compared with the same period of 1941.

Included in the July totals were 96 death claims, eight more than were filed in June, and 24,789 claims for payment of medical expenses only, involving injuries which did not cause compensable work loss of seven or more days.

Claimants were paid a total of $1,049,029.98 in compensation during July, and the Commission authorized disbursement of $473,944.43 for payment of claimants' medical, hospital and funeral bills in approved claims.

Extra Examinations To Be Given By Ophthalmology Board

Because of the war emergency, the American Board of Ophthalmology will hold additional examinations in New York, December 13 through 16, and in Los Angeles, January 15 and 16. Application to take these examinations must be made before November 1 on blanks which may be obtained from the Board's headquarters, 6830 Waterman Ave., St. Louis, Mo.

At the last meeting of the Board, it was decided to cancel the 1943 written examination, to include in the oral examination all subjects previously covered in the written examination, and temporarily to dispense with the case reports requirements. The oral examination is expected to require two or three days. It will cover the following subjects: External diseases—slit lamp; ophthalmoscopy; histology, pathology, bacteriology; ocular motility; refraction - retinoscopy; practical surgery; anatomy and embryology; perimetry; therapeutics and operations; optics and visual physiology; and relation of the eye to general diseases.

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When the back-water of the dam gets too high, the sluice-gate is opened and the lake level is dropped to a safe stage.

The arrhythmic heart is prone to produce a potentially dangerous venous congestion. DIGIFOLIN, "Ciba" by slowing down the rate, eliminating weak, ineffectual contractions, which take place before the ventricles have filled, causes a marked increase in the minute volume output of the heart, thus relieving this "back pressure."

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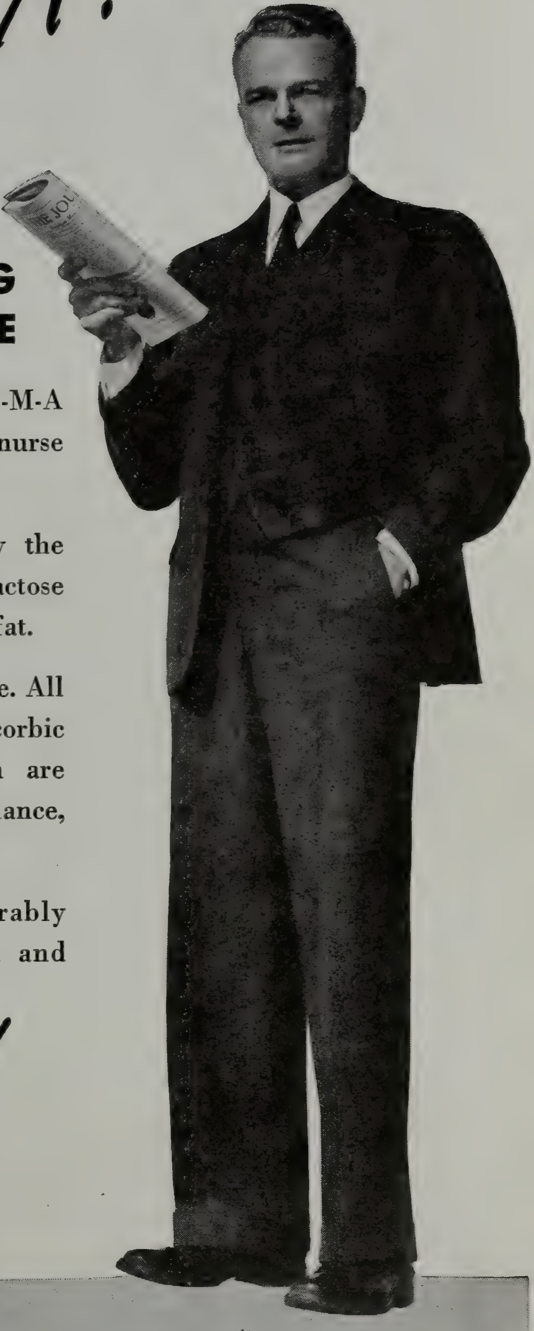

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Physical Therapy Course Offered At Columbia University

Columbia University announces that beginning September 1942, a program of professional studies for the training of physical therapy technicians will be offered. This training and instruction will extend over a two-year period and has been organized in compliance with the requirements set down for such programs by the Council on Medical Education and Hospitals of the American Medical Association. The course is being set up in University Extension in close relationship with the College of Physicians and Surgeons of Columbia University, the Nursing Education and Health and Physical Education Departments of Teachers College. The clinical and laboratory instruction will be given at the Vanderbilt Clinic, Neurological Institute, Presbyterian Hospital and New York Orthopedic Dispensary and Hospital.

Two years or 60 semester hours of college, including courses in Physics and Biology, shall be required, or graduation from an accredited School of Nursing or an accredited School of Physical Education.

A Certificate of Proficiency in Physical Therapy will be granted by Columbia University to those completing the course. Further information may be obtained by writing the Office of the Committee on Physical Therapy, Room 303B, School of Business, Columbia University, New York City.

Big Sum Paid By Hospital Plan

Since the inception of the Cleveland Hospital Service Association eight years ago on June 15, 1934, it has paid $8,825,721 for hospital care of 168,177 patients. Nearly 1,500,000 days of hospital care have been provided. "Association babies" have numbered about 19,000 since the plan was extended to include maternity cases in April, 1938. The Association has 615,000 subscribers and its financial reserves total more than $1,000,000. It has 135 employees. Operating cost is seven per cent of earned income.

Coming Meetings

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, White Sulphur Springs, W. Va., Sept. 10-12.

American College of Surgeons, Cleveland, Nov. 17-20.

American Congress of Physical Therapy, Pittsburgh, Sept. 9-12.

American Roentgen Ray Society, Chicago, Sept. 15-18.

Mississippi Valley Medical Society, Quincy, Ill., Sept. 30-Oct. 2.

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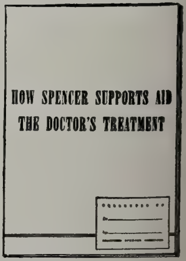
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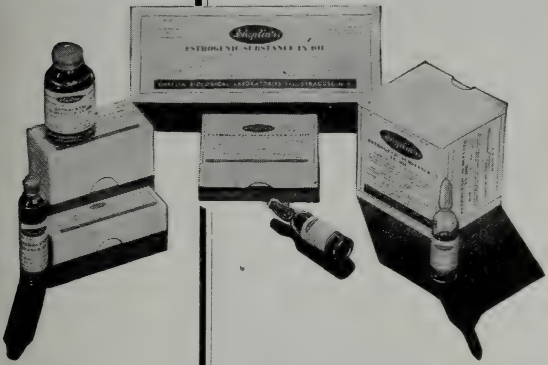

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Mississippi Valley Medical Society To Meet Sept. 30-Oct. 1, 2

The Eighth Annual Meeting of the Mississippi Valley Medical Society will be held in the Hotel Lincoln-Douglas, Quincy, Ill., Sept. 30, Oct. 1, 2. The program will be given by 25 clinician-teachers who will give over 40 lectures, demonstrations, instructional courses, etc. On Sept. 30 there will be a series of instructional courses by Kansas City clinicians and a complimentary stag supper. On Oct. 1, a group of well-known Chicago teachers will have charge. A special Physicians' Sports Events program will be featured on this date with prizes for golf, skeet, bowling, archery and horse-shoes. The Banquet will be addressed by Dr. Edward H. Cary, of Dallas, Texas, Past-President of the American Medical Association, and the Presidents of the Illinois, Iowa and Missouri State Medical Societies. There will be numerous technical and scientific exhibits. Every ethical physician is cordially invited to attend and no registration fee will be charged physicians in the uniform of the armed forces of the United States.

Physical Therapy Congress

The American Congress of Physical Therapy will hold its twenty-first annual scientific and clinical session September 9-12, at the Hotel William Penn, Pittsburgh. The annual instruction course will be held from 8:00 to 10:30 a.m., and from 1:00 to 2:00 p.m. during the days of September 9, 10 and 11 and will include a round table discussion group from 9:00 to 10:30 a.m., Thursday, September 10. The scientific and clinical sessions will be given on the remaining portions of these days and Saturday morning. A new feature will be an hour demonstration showing technic from 5:00 to 6:00 p.m. during the days of September 9, 10 and 11. All of these sessions and the seminar will be open to the members of the regular medical profession and their qualified aids. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

Ironton—Advances in medical science and surgery were discussesd by Dr. Ralph F. Massie at a meeting of the Rotary Club.

Fostoria—Moderation in all things was advocated by Dr. F. H. Pennell in a health talk to the members of the Rotary Club.

Conneaut—Dr. J. G. Constantine has been named city health commissioner to serve during the absence of Dr. John Mowry, now on duty with the Medical Corps of the U. S. Army.

V

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Adopt Compulsory Disability Plan

Compulsory disability insurance for workers has been instituted in Rhode Island. Not to be confused with compulsory health insurance, the Rhode Island plan will pay benefits to employes for wages lost during time off work for sickness. Payroll deductions of 1½ per cent will provide the funds from which these benefits will be paid. The plan went into effect June 1, but benefits will not be paid before April 1, 1942. After a one-week waiting period, sick workers may be paid weekly benefits varying from $6.75 to $18. Maximum amounts to be paid in one year vary from $34 to $364.50, depending on earnings record and the duration of illness. The law does not provide that any portion of the benefits must be used to pay medical expenses.

Health Officials Elect Officers

Dr. J. J. Sutter, Wooster, was elected president of the Ohio Federation of Public Health Officials at the recent annual meeting in Columbus. Dr. J. F. Wilson, Washington C.H., was named president-elect and Dr. W. D. Bishop, Greenville, was re-elected secretary.

Dr. P. L. Harris, Ravenna, president of the Federation, presided at the all-day meeting. Speakers included: Basil O'Connor, president of the National Foundation for Infantile Paralysis; Dr. R. H. Markwith, State Director of Health; Dr. Carl Wilzbach, Cincinnati, health commissioner; Mrs. Alice H. Smith, nutritionist for the Cleveland Health Council, and Paul A. Holmes, chief of environmental sanitation, State Department of Health.

Caldwell—The Noble County Board of Health has appointed Dr. N. S. Reed health commissioner to complete the unexpired term of Dr. E. G. Ditch, now on military service.

Cincinnati—Dr. John H. Skavlem has been named a member of the Council of the American Trudeau Society.

Columbus—"Modern Treatment of War Injuries", was the subject of a talk made by Dr. J. Mitchell Dunn at a meeting of the Catholic Men's Luncheon Club.

Newark—Dr. Wm. E. Shrontz, a charter member of the local Lions Club, was presented with a life membership in the organization in recognition of his service to the club during the past 22 years.

Niles—Dr. M. A. Buck spoke on "Alcohol and Its Effects," at a meeting of the Kiwanis Club.

Sandusky—Dr. F. E. Mahla has been reappointed city health commission for one year.

Youngstown—Dr. R. G. Patton has been reappointed health commissioner of Mahoning County for a two-year term.

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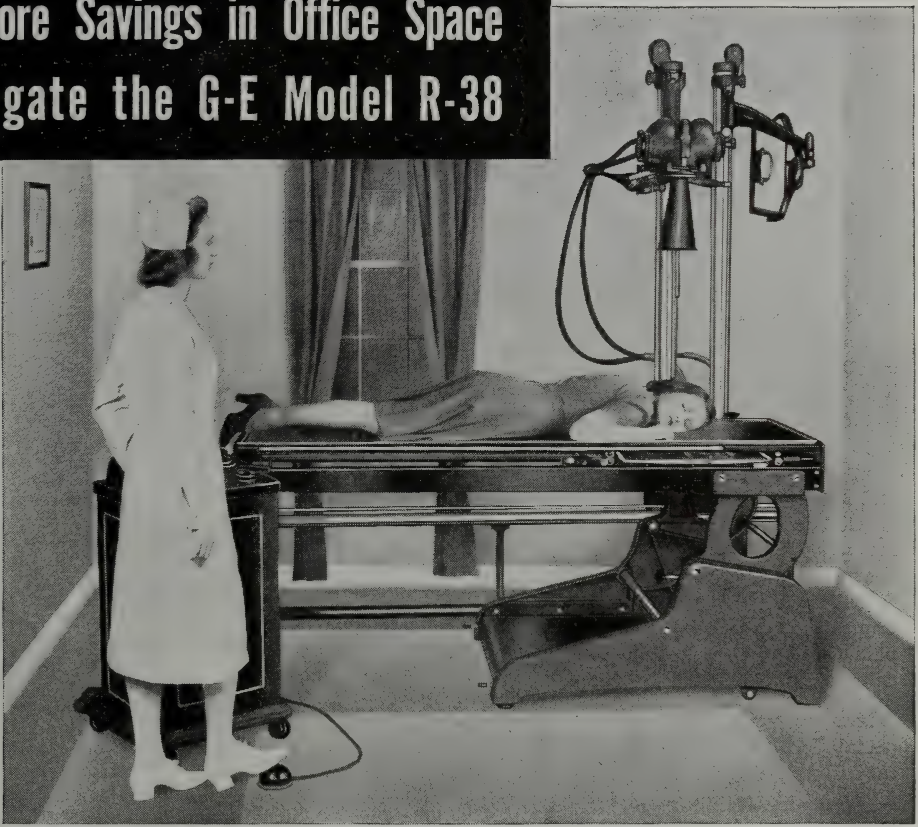

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The Physician's Bookshelf

Textbook of Gynecology by Arthur Hale Curtis, M.D. ($8.00, *W. B. Saunders Company, Philadelphia, Pa.*) presents many and important changes, especially in the cultivation of gonococcus and the use of the sulfa drugs. For the first time the author feels that he has adequately expressed his views relative to the management of uterine displacements. These and many other improvements make this one of the outstanding textbooks in the field.

Family Nutrition. (Published by the *Philadelphia Child Health Society, Philadelphia, Pa.*) This 112-page pamphlet is the answer to the needs of leaders in defense courses, and teachers in the high schools. It is geared to the war situation and discusses nutrition and national fitness, nutritional status of human beings and how it is the measure of dietary values of common foods, nutritional needs of people, the relationship of food intake and appetite to nutritional status and resistance to disease, balanced diets with balanced budgets. It is all done in a very compact, attractive manner. The most interesting thing about the pamphlet is that it is offered for free distribution as long as it lasts, as a war measure. Copies may be obtained by writing the Philadelphia Child Health Society, Juniper Street, Philadelphia, Pa.

Manual for the Conduct of Classes for Expectant Parents. (Prepared for publication by *the Cleveland Child Health Association, 1001 Huron Road, Cleveland, Ohio, Second Edition*), is an outline in detail of the program put on by the Cleveland Association with the hope that it would be of assistance to those undertaking similar programs elsewhere. The appearance of the second edition proves that this hope has been fulfilled. Not only is it useful to program directors, but it can be used very successfully as an outline for the program which every physician who advises expectant parents should institute in his own office.

Pathology of the Oral Cavity, by Lester R. Kalin, D.D.S. ($5.50. *The Williams & Wilkins Co., Baltimore, Md.*), covers the pathology of lesions of the oral cavity that are commonly seen in every day practice. Very serviceable manual because of its practicability.

Native African Medicine by George Way Harley, M.D. ($3.50, *Harvard University Press*), deals with practices in the Mango tribes of Liberians. Presents in abundant detail and in an easily read style, the wonderful experiences Dr. Harley had as a practitioner of tropical medicine for over 20 years in Western Africa.

Diseases of the Ear, Nose and Throat by Francis D. Leeder. (Third Edition, *F. A. Davis Co., Philadelphia*), is the second edition within two years. This speaks for the popularity of the book. The author has been greatly assisted by many of his colleagues at the University of Illinois. The material is arranged in an excellent fashion for teaching.

America's Nutrition Primer, What to Do and Why by Eleanor Sense ($1.00, *M. Barrows & Co., Inc., New York City*). In a brief 100 pages the author gives us the essentials of the science of nutrition in non-technical language with recipes and rules, budget saver menus and simple advice on marketing. A book that should have very wide

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Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

Several phases of a *grand mal* epileptic seizure schematically pictured in the rare book, "Les Demoniaques Dans L'Art," by J. M. Charcot and Paul Richer, published in 1887.

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1. McEachern, D.: *Canadian Med. Ass'n. J.*, 45:106, 1941.
2. Lennox, W. G.: *Med. Ann. Dist. Col.*, 10:461, 1941.

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distribution among lay people and should be read by some of our nutritionists who make their stuff too high sounding.

Fractures, Dislocations and Sprains by John A. Key, M.D. and H. E. Conwell, M.D. (Third Edition, *C. V. Mosby Co., St. Louis)*, presents the most recent advances in treatment of fractures and dislocations. This edition has had extensive changes in the section devoted to the spine, humerus and foot. Much new material on sulfanilamides as well as a whole new section on war injuries. A very timely revision of a very excellent text.

Blood Grouping Technique by Fritz Shiff, M.D., and William C. Boyd, Ph.D. ($5.00, *Interscience Publishers, Inc., 215 Fourth Avenue, New York City)*. This is a manual for all who are interested in the subject. Dr. Boyd has undertaken the task not only of translating Dr. Shiff's treatise but also of revising and extending the book, he himself having notably advanced knowledge in this field.

Sex Education in High Schools by John Newton Baker ($2.00, *Emerson Books, Inc., New York City)*, discusses not only the question of what to teach and how to teach it but also the problem of overcoming folk beliefs. The book presents an excellent survey of the status of sex education in the various states and points out how specific school systems are handling the problem. In conclusion he makes certain specific recommendations.

The Pathology of Trauma by Allan R. Moritz, M.D. ($6.00, *Lea Febiger, Philadelphia)*, is a text dealing with one of the four major fields of pathology, i.e., trauma. The author will be remembered as a member of the staff of Western Reserve University. He is now professor of legal medicine at Harvard Medical School. He presents a book that will be worthwhile to all who are interested in this subject, military surgeons, coroners, medical examiners, industrial physicians general practitioners, and lawyers in specialized compensation work.

Diseases of the Nose, Throat and Ear, A Handbook for Students and Practitioners by I. Simson Hull ($4.50, Second Edition, *Williams and Wilkins, Baltimore, Maryland)* is a fine example of a British manual of Otolaryngology. An immense amount of material has been crowded into 400 small pages which are clearly stated and practical.

Nutrition and Chemical Growth in Childhood, Volume I, Evaluation by Icie G. Macy, Ph. D., ($5.00, *Chas. C. Thomas, Springfield, Illinois)*, is the first of two volumes presenting the results of 10 years of intensive study of normal children by the united effort of over 50 persons, each

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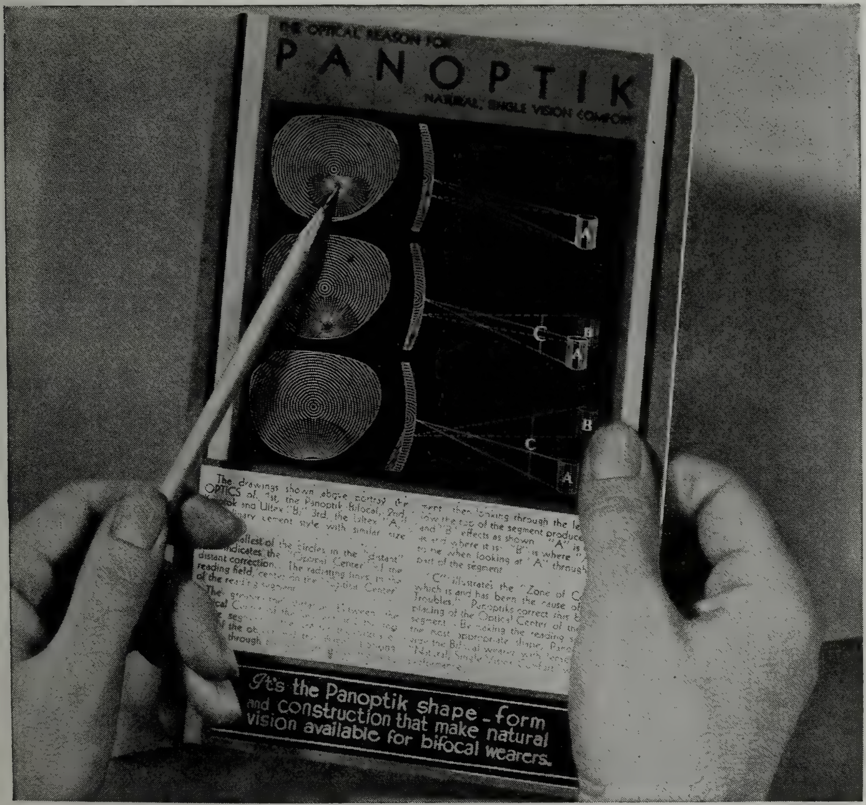

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contributing from his specialized field. It is therefore a book that must be in the library of everyone who is interested in growth and most of us who are interested in children and child welfare should begin to be interested in growth.

Food, Nutrition and Health by E. V. McCollum, Ph. D. and J. E. Becker, M.A. ($1.50, Fifth Edition, *The Authors, Baltimore, Maryland)*, presents the established facts about nutrition in non-technical language and attempts to show what can and what cannot be accomplished through diet.

Plastic and Maxillofacial Surgery, presented by sub-committee on Plastic and Maxillofacial Surgery of the committee on surgery of the Division of Medical Science of the National Research Council. *(W. B. Saunders Co., Philadelphia).* This is one of a series of military surgical manuals that been presented to meet the necessity of the armed forces. Its interest is therefore nation wide.

Treatment in General Practice by Harry Beckman (Fourth Edition, thoroughly revised, *W. B. Saunders Co., Philadelphia)*, is an up-to-date rewriting of this excellent book on therapy. The whole subject of therapeutics is presented from the refreshing viewpoint. In it each of the principal diseases of man has had its own peculiar therapy described as that therapy has been evolved out of the experiences of physicians all over the world.

The National Formulary, (Seventh Edition, *American Pharmaceutical Association, Washington, D.C.)*, will be official from November 1, 1942.

War Gases, Their Identification and Decontamination by Morris B. Jacobs, Ph.D. ($3.00, *Interscience Publishers, Inc., New York City)*, is written to give civilian defense against poison gas. The author is a well known authority and the subject is adequately presented.

Physical Chemistry for Students of Bio-Chemistry and Medicine by Edward Staunton West, Ph.D. ($5.75, *The MacMillan Co., New York)*, presents selected phases of physical chemistry which are recognized as basic to an understanding of bilogical phenomena. The book is based upon experience in meeting the medical student's requirements at the University of Oregon.

Drugs and Mental Diseases, a Review of 841 cases, by Merril Moore, M.D., and Alice F. Raymond and M. G. Gray, Department of Diseases of the Nervous System, Harvard Medical School. Reprinted from Confinia Nerologica 4 1941 pp. 238-271. Presents the detailed study of 861 cases of mental illness associated with the excessive use of drugs. This group occurred among 115,805 individual admissions to Massa-

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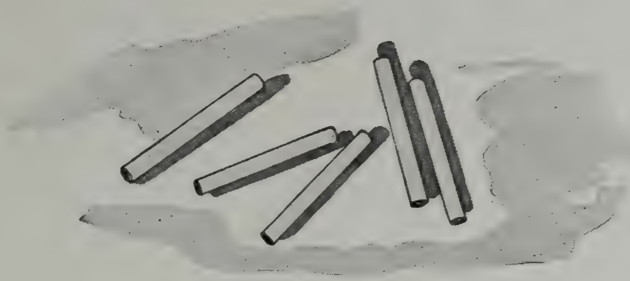

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
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TO PHYSICIANS WHO SMOKE A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

chusetts Mental Hospital between 1917 and 1938. Most of these addictions were for opium (363 cases); barbiturates (208 cases); bromides (101 cases). Most of these people were well educated, native born and unmarried. 42.5 per cent of all admissions and 65.4 per cent of readmissions report the intemperate use of alcohol. The recovery rate is high and the death rate is low. The prognosis of mental illness due to drugs is therefore more favorable than in any other type of mental disease.

The Kenney Method of Treatment for Infantile Paralysis by Doctors Cole, Pohl and Knapp, of the University of Minnesota. Is publication No. 40 of The National Foundation for Infantile Paralysis, Inc. These men have observed and studied Sister Kenney and her assistants for two years and make a report of this finding in this pamphlet.

Psycho-Therapy in Medical Practice by Maurice Levine, M.D. ($3.50, *The MacMillan Co., New York City)*, was written for general practitioners and physicians in general who are not too familiar with the field. It was not intended for laymen. Its author, a member of the staff of the Cincinnati General Hospital, is well known to the readers of this Journal. Any physician desiring clear cut information about the handling of personality problems will do well to arm himself with this book.

Dr. Bard of Hyde Park by J. Brett Langstaff ($3.75, *E. P. Dutton & Company, New York City)*, is the life story of the famous physician of Revolutionary times who saved George Washington's life. The book is packed with eighteenth century lore and contemporary detail. For all who like biographical reading and to all those who can be appealed to by Americana this book will be highly prized.

Washington Is Like That by W. M. Kiplinger ($3.50, *Harper & Brothers, New York City).* Is a long news letter from our Capital by the man who is famous for his Washington News Letters. This Journal takes pride in noting that in his student days Mr. Kiplinger wrote its news items. From this he has gone on to become the master letter writer of our time. This, a letter of some 520 pages, is by far his longest. Every paragraph, however, is full of lively information that presents a frank picture of the inside workings of our Federal Government and a clear estimate of the men who run it. One really can't understand the conduct of the current war without reading this book.

The Problem of Food, Public Affairs Pamphlet No. 3 (Revised) by Jennie I. Rowntree, is a well written, simplified discussion of food requirements.

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JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Combined Artificial Fever-Chemotherapy in the Treatment of Neurosyphilis

A Summary of Ten Years Experience

†H. WORLEY KENDELL, M.D., *WALTER M. SIMPSON, M.D., AND **DONALD L. ROSE, M.D.

FORTIFIED by the experiences of a decade it can now be stated that artificial fever therapy produced by physical means, is at least as effective as malaria therapy. The past five years have witnessed a notable decline in the hyperenthusiastic and sometimes extravagant claims made by certain advocates of one or the other method. Out of the controversy has emerged a more rational clarification of the relative merits of the two procedures.

The Authors

● Dr. Kendell, Dayton, Ohio, is a graduate of the University of Cincinnati, College of Medicine, 1932; member American Congress of Physical Therapy; American Society of Clinical Pathologists; American Society of Physical Therapy Physicians; American Neisserian Medical Society; director department of physical medicine, Miami Valley Hospital; acting director, Kettering Institute for Medical Research, Dayton, Ohio.

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● Dr. Rose, Dayton, Ohio, is a graduate of the University of Colorado, School of Medicine, 1936; member American Neisserian Society; department of physical medicine, Miami Valley Hospital, Dayton, Ohio.

It is impossible in the short time allotted for this presentation to give in detail the results of either malaria or artificial fever therapy which have been published in the past 10 years. However, conclusive material has been presented in the past 10 years to justify the initial statement made above. In the analysis presented in 1939 by Julius Wagner-Jauregg,[1] which was published a short time beefore his death, are significant statements which bear considerable weight in view of the fact that Wagner-Jauregg was the father of malaria therapy. In this publication he stated, "The method of treatment by elevation of body temperature to the height of fever by physical means has been used in a large number of diseases and has been shown to be very valuable. In so far as used in progressive paralysis the methods concur with malaria therapy. Results show that after treatment of progressive paralysis with physically induced fever there are remissions similar to those which occur in patients treated with malaria. Also many have found that treatment of paralytics with physically induced fever gave a number of full remissions as great

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Read before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28-30, 1942.

†From Kettering Institute for Medical Research, and Department of Physical Medicine, Miami Valley Hospital.

*Commander, U.S. Naval Medical Corps, Active Duty.

**Captain, U.S. Army, Medical Corps, Active Duty.

or greater than with malaria. Furthermore, it is a well known advantage of artificial fever that one can regulate the height of the temperature reached, the length of the fever periods and the length of fever-free rest periods according to the condition of the patient. Moreover, during the course of treatment continuous hospitalization is not necessary. Also those sick people who can still continue their ordered business life require several weeks of interference with their work if malaria treatment is used. Finally, if following artificial fever and chemotherapy, the goal of treatment is not reached, namely the production of negative spinal fluid, then one still has time to utilize malaria treatments.

"Admitting that experience has determined from a great amount of material that malaria and artificial fever combined with intensive treatment with pentavalent arsenicals gives on the average the same number, degree and length of remissions there must also be non-medical considerations in the choice of the method. One must observe the question from an economic standpoint. So far as the fever producing agents are concerned the malaria treatment has an unquestioned advantage. The little cubic centimeter of blood which is necessary for the treatment of paralytics costs nothing, and even supposing that the material for injection comes from another place, there is no important cost. Furthermore, sick persons can be treated together in a room under supervision of a trained nurse or orderly. The artificial fever apparatus is costly. During the course of a treatment the uninterrupted presence of a person trained in the complex technic of the apparatus is necessary. Also only as many cases may be treated simultaneously as there is available equipment. Truly one advantage of the artificial fever treatment must be brought forward; namely, that it is innocuous compared to the danger of malaria treatment (as regards fatalities)."

In 1936 approximately three years after Wagner-Jauregg's report appeared, Dr. Thomas Parran, Surgeon-General of the United States Public Health Service, appointed a sub-committee of the Cooperative Clinical Group to study and to evaluate the various forms of non-specific therapy used in the treatment of neurosyphilis. This committee was composed of Dr. Paul A. O'Leary,[2] Mayo Clinic, Rochester, Minnesota; Dr. Walter L. Bruetsch, Central State Hospital, Indianapolis, Indiana; Dr. Franklin G. Ebaugh, University of Colorado Psychopatic Hospital, Denver, Colorado; Dr. Harry C. Solomon, Boston Psychopathic Hospital, Boston, Massachusetts; Dr. Stanford L. Warren, University of Rochester, Rochester, New York; and this group at the Miami Valley Hospital, Dayton, Ohio. All had had extensive experience with either malaria therapy or with artificial fever therapy or with both. In addition to the above, the following clinic directors offered for analysis the records from their institutions: Dr. A. E. Bennett, University of Nebraska, Omaha; Dr. Harold N. Cole, Western Reserve University, Cleveland; Dr. J. R. Blalock and Dr. Leland E. Hinsie, New York State Psychiatric Institute, New York City; Dr. Frank R. Menaugh, Henry Ford Hospital, Detroit; and Capt. Ernest H. Parsons, M. D., United States Army, Fitzsimons General Hospital, Denver.

COMMITTEE REPORT ON TREATMENT

The report of the Committee on "Malaria and Artificial Fever in the Treatment of Paresis" appeared in August, 1940. The study was designed to compare the therapeutic results obtained by the use of artificial fever produced by physical methods with those obtained by the use of inoculated malaria in the treatment of paresis. The results were evaluated in terms of both clinical and serologic responses observed after the independent use of either method of fever therapy, with or without the associated employment of chemotherapy.

Only paretic patients who had been observed for more than two years following the commencement of fever therapy were considered. The records of 1,420 such patients were pooled for statistical study. Of these 1,100 patients were treated with malaria and 320 with artificial fever.

As regards patients with "mild" or intermediate paresis there were no statistically significant differences between the rates of remission obtained with malaria therapy and those obtained with artificial fever therapy. In other words, equally good clinical results were obtained following either method of fever therapy in patients with mild or intermediate paresis. Sharp and statistically reliable differences were noted, however, between the results of the two methods of therapy among patients suffering from severe paresis at the beginning of fever therapy; here there was a distinct superiority of remission rates following artificial fever therapy. The clinical responses were best when fever therapy was instituted early in the course of the disease. Thus, at the end of three or four years of treatment-observation, more than one-half of the patients with mild paresis treated with either method of therapy had clinical remissions. Similarly, with either method of fever therapy, the rates for clinical recovery were reduced to approximately one in four patients with intermediate paresis. While the proportion of remissions was distinctly less in patients with severe paresis, 11 per cent of patients with severe paresis obtained clinical remission after artificial fever, while only 1 per cent had clinical remission following malarial fever therapy.

For purposes of this study, treatment deaths were defined as deaths occurring not only during the course of fever therapy, but also included all who died regardless of cause during the succeeding three months. Utilizing such criteria, the total crude death rate was higher with malaria (13 per cent) than with artificial fever (8 per cent). The frequency of death was greatest among the patients with severe paresis (25.9 per cent of malaria treated cases and 17.9 per cent of those treated with artificial fever).

An analysis of the relative speed with which remissions were attained revealed that approximately 90 per cent of the successful results occurred by the end of the third year by either method. In mild paresis remissions were obtained from one to two years earlier than in intermediate or severe paresis.

RELATION OF CLINICAL SEROLOGIC RESULTS

If clinical improvement was delayed beyond the second year following fever therapy by either method remission did not occur. Thus, the more prompt the clinical response, the better was the prospect for eventual remission. Once clinical remission was obtained the chances of its being maintained were 95 out of 100. There was no statistically valid difference in the relapse rates following either method of fever therapy.

In determining the relation of clinical to serologic results, it was found that clinical success was not accompanied by complete serologic reversal (of blood and of spinal fluid) in more than one half of the cases. Thus, emphasis is again given to the fact that successful clinical outcome is not necessarily dependent upon serologic response.

Regardless of the method of therapy, the percentages of serologic reversal rates of both blood and spinal fluid increased as the duration of the treatment-observation period grew longer. Positive blood reactions reversed more rapidly though not in greater proportion than positive spinal fluid reactions.

The necessity for employing auxiliary chemotherapy with either method of fever therapy was indicated by both the significantly higher proportion of spinal fluid reversals and by the maintenance of such reversals in patients receiving concomitant or subsequent chemotherapy or both. The reversal rates of blood and spinal fluid were approximately twice as great with as without the use of auxiliary chemotherapy. Among patients not receiving auxiliary chemotherapy 42 per cent of all spinal fluid reversals subsequently relapsed, as contrasted with 24 per cent spinal fluid relapses among patients treated with auxiliary chemotherapy.

The highest percentage of clinical remissions was obtained in the two groups of patients who experienced either an average of 69 hours of fever above 101° F. of which 70 per cent were at a level above 105° F. with a maximum temperature of 106.9° F., or in those who received an average of 44 hours of fever above 101° F. of which total time 57 per cent were above 106° F. with a maximum temperature of 107° F. A careful analysis of the data revealed that no clinical advantages were gained by submitting patients to rectal temperatures above 106.5° F. They also concluded that apparently the highest rectal temperature levels which can be used with safety in clinical practice are between 106.5 and 106.7° F.; and then only when surrounded by adequate safeguards.

COMPARATIVE STUDY

The excellent comparative study carried out by Drs. Barnacle,[3] Ebaugh, and Ewalt of the University of Colorado, on the treatment of paresis with artificial fever and malaria, bears mention. A five year comparative study of artificial fever therapy and malaria therapy based upon the alternate assignment of 232 patients with dementia paralytica, was made. As the work progressed it became apparent that certain paretic patients who were not considered to be candidates for malaria therapy because of such concomitant disorders as cerebral arteriosclerosis, chronic nephritis or diabetes, could tolerate artificial fever therapy if due caution was exercised. Hence the only deviation from the "alternate plan" was to include 37 such patients in the group treated with artificial fever and auxiliary chemotherapy. Thus, the totals are brought to 134 patients treated with artificial fever therapy and to 98 patients treated with malaria. In this group 69 per cent of the patients treated with artificial fever showed complete remission or were improved, while 58 per cent of those treated with malaria therapy showed a similar response. Twenty-two per cent of those treated with artificial fever were unimproved as were 27 per cent of the group treated with malaria.

During the first three years of the investigation the patients treated with artificial fever received 50 hours of fever at a rectal temperature of 105° to 106° F., given as 10 treatment sessions of five hours each. In the last two years of the study it was found that a series of 12 individual fever sessions of three hours each at a rectal temperature of 105.8° was equally effective and had the decided advantage of permitting the treatment of a greater number of patients.

These investigators found that intensive chemotherapy subsequent to fever therapy is an essential requirement for sustained optimum results. It is pertinent to observe that Ebaugh[4] and Ewalt have now abandoned malaria therapy in favor of artificial fever therapy.

Another interesting and important report is that of Bennett,[5] et al, of the University of Nebraska at Omaha. The report deals with five years experience in the treatment of neurosyphilis, and they reported that 81 per cent of the patients showed remission or were improved. Of particular interest in this report were the results obtained in 25 patients with tabes dorsalis, the predominant symptoms being lightning pains and gastric crises in 17 patients, ataxia in seven patients and "cord bladder" in two patients. In this group 18 patients, chiefly those with root pains, received complete relief, while five showed varying degrees of improvement and two showed no improvement.

As a result of these studies the authors drew the following conclusions: that patients of advanced years or in poor physical condition, including those with such complications as hypertension or aortitis, can be treated with greater safety with artificial fever because the height and duration of fever can be controlled readily; that chemotherapy increases therapeutic effectiveness; that the prescribed number of hours of fever are more easily obtained by physical methods; and that a significant proportion of neurosyphilitic patients who fail to respond to malaria therapy or who obtain only moderate degrees of improvement following such treatment are benefited by subsequent artificial fever therapy.

Dr. Bromberg[6] of Washington University, St. Louis, who treated 300 patients with artificial fever reported that 76 patients treated for various manifestations of neurosyphilis showed results similar to those reported by Bennett, et al. Trautman[7] of the U. S. Marine Hospital, New Orleans, reported on 109 patients treated for neurosyphilis. Neymann[8] of Northwestern University, Chicago, has reported on 120 patients treated for dementia paralytica and has reported a survey by some 50 investigators on artificial fever therapy, in which 975 patients were evaluated. Hinsie[9] and Blalock, New York State Psychiatric Hospital reported on 146 adult patients with dementia paralytica observed during a period of five and one-half years. All of the above mentioned investigators reported similar remission rates in the treatment of various types of neurosyphilis.

HISTORY AND PROGRESS OF WORK

The history and progress of our work in artificial fever therapy since its inception in 1931 has been recorded in several publications.[10] Impressed by the successful clinical results attained early in the course of the undertaking, despite the handicap of inefficient physical modalities then available, we decided that future researches should be directed along two separate but related routes; namely, toward the development of simpler, safer and more easily controllable apparatus for the production of fever, and towards an exploration of the possible fields of usefulness for this mode of treatment.

Coincident with the early engineering developments related to the apparatus, it was natural that the first clinical applications should be directed towards a determination of the possible usefulness of artificial fever therapy in the management of dementia paralytica. Wagner-Jauregg's successes with the treatment of this disease with malaria therapy had been widely confirmed. Comparable clinical results had also been obtained in those cases of dementia paralytica in which sustained high fever occurred following inoculations with organisms of rat-bite fever and of relapsing fever, or following injections of vaccines.

The first patients treated by us with artificial fever, produced by means of various physical modalities, were those who were suffering from dementia paralytica. Despite the difficulties and discouragements encountered in the quest for suitable physical methods, it was observed from the start that the clinical results were at least comparable to those previously obtained with malaria therapy.

ADVANTAGE OF ARTIFICIAL FEVER

One advantage of the artificial fever method in contrast to malaria therapy is that arsenic and bismuth compounds may be administered with each fever treatment. Our observation that fever appeared to exert a protective function against anaphylactic phenomena produced in sensitized individuals by arsenic, led us to change from the practice of injecting the arsenical compound half an hour before each fever treatment was begun to that of making the injection when the rectal temperature first reached the desired level. In our experience, patients who previously had been treated with arsenicals and received extensive and various types of sensitization reactions, were treated with the combined fever-chemotherapy without similar reactions. The observations fortified our belief in the protective effect of fever against the development of symptoms of sensitization to the heavy metals.

For purposes of comparison various arsenic compounds have been employed combined with artificial fever. One significant observation has accrued from this comparative study; namely, that regardless of the type of arsenical compound used, and despite the great variation in arsenic content, the time required for clinical remission and for serologic reversal did not vary appreciably. Factors other than quantitative arsenic content appear to operate in producing a favorable outcome. During the past five years we have utilized mapharsen exclusively. This has been given in doses of 0.04 or 0.06 grams combined with bismuth in the form of bismuth salicylate, the latter being injected immediately before the treatment session is begun.

During the first six years of this investigation, the usual course of treatment for neurosyphilitic

TABLE I

Type of Neurosyphilis	No. Treated	Incomplete Follow-up Data	Incomplete for Analysis	Remission	Improved	Not Improved	Progress	BLOOD			SPINAL FLUID		
								Became Neg.	Less Positive	Unchanged	Became Neg.	Less Positive	Unchanged
Dementia Paralytica Mild	48	9	39	23 (59%)	14 (35%)	2 (6%)	—	18 (46%)	19 (49%)	2 (5%)	16 (41%)	16 (41%)	7 (18%)
Dementia Paralytica Intermediate	47	9	38	21 (55%)	9 (24%)	5 (14%)	3 (7%)	8 (21%)	29 (76%)	1 (3%)	6 (16%)	26 (68%)	6 (16%)
Dementia Paralytica Severe	19	3	16	2 (13%)	8 (50%)	3 (18.5%)	3 (18.5%)	4 (25%)	7 (44%)	5 (31%)	3 (18%)	7 (44%)	6 (38%)
Tabetic form of dementia paralytica	37	6	31	18 (58%)	6 (19%)	5 (16%)	2 (7%)	12 (39%)	12 (39%)	7 (22%)	11 (35%)	12 (39%)	8 (26%)
Tabes Dorsalis Mild	8	2	6	4 (67%)	2 (33%)	—	—	5 (83%)	1 (17%)	—	3 (50%)	1 (17%)	2 (33%)
Tabes Dorsalis Intermediate	30	13	17	9 (53%)	5 (29%)	3 (18%)	—	8 (47%)	5 (29%)	4 (24%)	8 (47%)	3 (18%)	6 (35%)
Tabes Dorsalis Severe	22	12	10	2 (20%)	5 (50%)	1 (10%)	2 (20%)	5 (50%)	3 (30%)	2 (20%)	6 (60%)	2 (20%)	2 (20%)
Meningeal Neurosyphilis	9	1	8	7 (87%)	1 (13%)	—	—	5 (62%)	2 (25%)	1 (13%)	6 (75%)	2 (25%)	—
Vascular Neurosyphilis	13	1	12	4 (33%)	1 (9%)	4 (33%)	3 (25%)	3 (25%)	8 (67%)	1 (8%)	3 (25%)	6 (50%)	3 (25%)
Meningovascular Neurosyphilis	12	3	9	8 (89%)	—	1 (11%)	—	4 (44%)	4 (44%)	1 (12%)	5 (56%)	4 (44%)	—
Asymptomatic Neurosyphilis	26	4	22	—	—	—	—	12 (55%)	9 (41%)	1 (4%)	11 (50%)	9 (41%)	2 (9%)
Totals	271	63 (23.6%)	208	98 (52%)	51 (28%)	24 (13%)	13 (7%)	84 (40%)	99 (48%)	25 (12%)	78 (38%)	88 (42%)	42 (20)%

patients consisted of 10 five-hour sessions of artificial fever therapy at 105-106° F., usually given at weekly intervals for a total of 50 hours. After the course of combined fever and chemotherapy was completed, the patients received an additional course of bismuth and arsenic injections, given concurrently, at weekly intervals for a period of 20 weeks.

During the past five years the five hour treatment was reduced to three hours and the total number of hours reduced from 50 to an average of 36 hours. In other words, the patients received 12 three-hour sessions instead of 5 ten-hour sessions. The same height of fever, that is 105-106° F., was maintained. For the most part, during the first six years the patient received treatment at weekly intervals and occasionally treatments were given twice weekly. However, since the treatments were reduced to three-hour sessions many patients have been treated twice and three times weekly. These more frequent treatment sessions have proved advantageous particularly since the advent of hospital insurance, since the patient may be admitted for a period of 30 days and receive a full course of treatment in this interval. It is worthy of note that no difficulties have arisen from administering treatment this frequently in spite of the fact that the arsenical is given with each treatment session and the bismuth preparation given on the average of twice weekly. However, for the individual who is unable to give up his work entirely for a period of weeks, there has been a certain practical advantage in administering treatment at weekly intervals, which allows the patient to continue with his work while being treated. Individualization of the treatment program according to the status of the patient under treatment is of paramount importance. Most patients being treated for neurosyphilis can tolerate the three-hour sessions without difficulty. However, in markedly debilitated patients, particularly those of the tabetic group and those in the upper age bracket which we consider poor risks in artificial fever therapy, it has been our practice to administer treatments in shorter sessions and gradually increase the length of the sessions as the patient's tolerance increases. Under these circumstances it is markedly advantageous to have the patient hospitalized so that a complete medical program can be carried out in connection with the specific treatment. With the improvement in the apparatus this individualization has been further enhanced. At the present time it is a rare instance that a patient who wishes to receive treatment for neurosyphilis cannot tolerate enough artificial fever to benefit him if he has an active process.

Since 1931 we have subjected 1376 patients to artificial fever therapy. Complications from this method of treatment have markedly lessened as the apparatus and technic of administration have improved. The strict adherance to a program of discontinuing treatment in the event the patient has an untoward reaction has thwarted many disasters which probably would have occurred if treatment had been continued.

The constant control of the patient's temperature by the nurse-technician facilitates not only the ease of administration of this method of treatment, but gives additional opportunity for immediate discontinuance of the treatment whenever the need arises. The use of the indicating thermometer, which gives the nurse-technician an accurate check of the patient's temperature at all times, allows further advantage in preventing untoward reactions that could occur as the result of sudden rises in the temperature.

Only those patients who have been under observation for periods of from 18 months to 10 years and four months are considered in this report. Of the 271 patients treated by us for neurosyphilis the records of 64 (or 23.5 per cent) were excluded from consideration because of incomplete post-therapy observation. Thus the records of 208 patients fulfill the necessarily rigid criteria for critical analysis. (Table I.)

DEMENTIA PARALYTICA

The 93 patients treated for dementia paralytica were grouped according to the classification adopted by the Committee on Non-Specific Therapy of Syphilis of the U. S. Public Health Service, as "mild", "intermediate", or "severe". Similarly, in the appraisal of the results of therapy, the criteria adopted by this Committee were employed. The average age of patients treated for dementia paralytica was 37.9 years. All but 23 of the 93 patients had received presumably adequate chemotherapy prior to the institution of artificial fever therapy; the others had received insignificant amounts of chemotherapy or none.

Included for analysis were the clinical and serologic data on 39 patients with "mild" dementia paralytica. Further proof of the necessity for treating paretic patients during this early stage of the disease is found in the fact that 23 of the 39 patients (59 per cent) achieved remission and 14 (35 per cent) were improved. Thus 94 per cent were benefited while two patients were not improved. In those treated for "mild" paresis, the blood serologic reactions were reversed to negative in 18 patients (or 46 per cent), became less positive* in 19 additional patients (or 49 per cent), and were not influenced in two patients (or 5 per cent). The spinal fluid serologic reactions became negative in 16 patients (or 41 per cent), were less positive at the time of last observation in 16 patients (or 41 per cent), and remained positive in seven patients (or 18 per cent).

Of the 38 patients with "intermediate" dementia paralytica, 21 (or 55 per cent) obtained remission, nine patients (or 24 per cent) were improved. Thus, 79 per cent of those with "intermediate" paresis were benefited. Five patients in this group were not improved, and the disease progressed following treatment in three additional patients. The blood serologic reactions were reversed to negative in eight patients (or 21 per cent) of those with "intermediate" paresis, became less positive in 29 patients (or 76 per cent), and remained positive in one patient (or 3 per cent). The spinal fluid serologic reactions were changed to negative in six patients (or 16 per cent), were less positive at the time of the last examination in 26 patients (or 68 per cent), and remained positive in six patients (or 16 per cent).

As would be anticipated the proportion of favorable clinical responses to the combined method of fever-chemotherapy were distinctly less in the patients with "severe" paresis. Thus, of 16 patients in this advanced stage of the disease, only two (or 13 per cent) achieved clinical remission. Eight additional patients (or 50 per cent) were improved. In three patients there was no improvement, while in three others the disease progressed despite treatment. It is perhaps of importance to indicate, however, that even in patients with manifestations of advanced paresis a certain amount of salvage was effected. Over one-half of the patients in this category were benefited. The responses of the blood and spinal fluid reactions exhibited no constant relationship to the clinical outcome. The reactions remained strongly positive in some who achieved clinical remission, and were reversed to negative in some in whom the disease process was either uninfluenced or progressed. The serologic reactions of the blood became negative in four patients (or 25 per cent), became less positive in seven patients (or 44 per cent), and remained positive in five (or 31 per cent). The spinal fluid reactions were reversed to negative in three patients (or 18 per cent), became less positive in seven patients (or 44 per cent), and were still positive at the time of the last observation in six patients (or 38 per cent).

TABETIC FORM OF DEMENTIA PARALYTICA (TABOPARESIS)

In the group of 31 patients with the tabetic form of dementia paralytica (taboparesis) the symptoms and signs of paresis usually dominated the clinical picture. All but one had received varying amounts of chemotherapy prior to artificial fever therapy. While many of these patients achieved coincidental improvement in both tabetic and paretic manifestations, the clinical outcome of therapy was largely dependent upon the relative mildness or severity of the paretic symptoms. Since it was not considered feasible to classify such patients in "mild", "intermediate", or "severe" categories because of the great variation in the relative degrees of paretic and tabetic symptoms, they are considered as one group. Those patients in this group who showed symptoms of lightning pains, gastric crises, "cord bladder", or ataxia of the lower extremities of less than two years' duration, responded favorably to treatment. Those patients in whom the above symptoms had existed for more than two years showed very little sustained improvement regardless of the amount of treatment given.

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*In this evalution "less positive" reactions were determined by Quantitative Kahn Titers.

Eighteen of the 31 taboparetic patients (or 58 per cent) achieved clinical remission of both tabetic and paretic symptoms. Six additional patients (or 19 per cent) were improved. Thus, 24 of the 31 patients (or 77 per cent) in this group responded favorably. Five patients with severe paretic symptoms were not improved and the disease progressed during and after treatment in two demented patients, who died six months and one year, respectively, after the course of treatment was completed.

The blood serologic reactions were reversed to negative in 12 patients (or 39 per cent), became less positive in 12 patients (or 39 per cent), and remained unchanged in seven patients (or 22 per cent). The spinal fluid serologic reactions were reversed to negative in 11 patients (or 35 per cent), became less positive in 12 patients (or 39 per cent), and were not influenced in eight patients (or 26 per cent).

TABES DORSALIS

All of the 33 patients with tabes dorsalis had received varying amounts of chemotherapy before artificial fever therapy was begun. Included in this group of patients were six with "mild" tabetic manifestations, such as lightning pains of recent origin, paresthesias, pupillary disturbances, reduced or exaggerated reflexes, or diplopia. There were 17 patients with "intermediate" tabes dorsalis, in which group were included those manifesting such signs and symptoms as those mentioned above, together with such additional evidences as "cord bladder", early and mild ataxia, gastric crises, or early optic atrophy. The 10 patients with "severe" tabes dorsalis exhibited such manifestations as marked ataxia, severe lightning pains or gastro-intestinal crises or both, incoordination, "cord-bladder", marked hyperesthesias or paresthesias, optic atrophy, or Charcot joints. Most of the patients with "severe" tabes dorsalis presented themselves with evidences of advanced malnutrition and avitaminosis; many verged on starvation because of almost uninterrupted gastro-intestinal crises. These patients presented the most trying treatment problems. Most would not have been considered as candidates for either malaria therapy or artifical fever therapy a few years ago. With the improvements in the apparatus for the production of fever and in the technic of administering the treatments, a significant proportion of these patients may be benefited. Such patients are first given short trial fever treatments, at a low level, following three or four of which it is usually possible to give the usual three-hour sessions at 105° F. (41.1° C.) Correction of dietary deficiencies, of anemia, and often of narcotic addiction, are essential requirements in the therapeutic program.

Of the six patients with "mild" tabes dorsalis, two were improved and four obtained lasting remission. The lightning pains often responded after the first two or three treatments. There has been no recurrence of such pains in the patients with "mild" tabetic symptoms; additional treatments were not required in this group of patients. The blood serologic reactions of the "mild" tabetic patients were reversed to negative in five patients or (83 per cent), and the sixth patient (or 17 per cent) became less positive. The spinal fluid serologic reactions became negative in three patients (or 50 per cent), were less positive at the time of the last examination in one patient (or 17 per cent) and remained unchanged in two patients (or 33 per cent).

Nine (or 53 per cent) of the 17 patients with "intermediate" tabes dorsalis obtained clinical remission following one course of combined fever-chemotherapy. Three patients with mild and early ataxia were restored to normal gait. Five (or 29 per cent) of the patients with "intermediate" tabes dorsalis obtained improvement. Three of these patients experienced recurrence of root pains, which were controlled with additional fever-chemotherapy. Two patients with "cord bladder" regained control of bladder function. Some improvement in gait disturbance occurred in all of the patients in this group. Three patients (or 18 per cent) with "intermediate" tabes dorsalis were not benefited by the course of treatment. The blood serologic reactions were reversed to negative in eight (or 47 per cent) of the patients with "intermediate" tabes dorsalis, became less positive in five patients (or 29 per cent), and were uninfluenced in four patients (or 24 per cent). The spinal fluid serologic reactions were reversed to negative in eight patients (or 47 per cent), became less positive in three patients (or 18 per cent) and were unchanged in six patients (or 35 per cent).

The results of treatment were decidedly inferior in the group of 10 patients with "severe" tabes dorsalis. Remission occurred in only two patients (or 20 per cent). Some measure of improvement, including relief of pains or improvement in bladder function, occurred in five patients (or 50 per cent). In one patient there was no improvement. In two advanced tabetic patients the disease progressed despite treatment and these patients died of the disease several months after the completion of the course of treatment. The blood serologic reactions became negative in five patients (or 50 per cent), became less positive in three patients (or 30 per cent), and were unchanged in two patients (or 20 per cent). The spinal fluid serologic reactions were reversed to negative in six patients (or 60 per cent), were less positive at the time of the last examination in two patients (or 20 per cent) and remained unchanged in two patients (or 20 per cent).

MENINGEAL NEUROSYPHILIS

Eight patients with meningeal neurosyphilis were treated with combined artificial fever therapy and chemotherapy. All but one had had presumably adequate chemotherapy. The characteristic manifestations of syphilitic meningitis were present, such as headache, dizziness, diplopia, nausea, vomiting, nuchal rigidity, aphasia, or convulsions, associated with the typical spinal fluid changes (pleocytosis, increased protein content and strongly positive serologic reactions). Seven of the eight patients (or 87 per cent) experienced complete clinical recovery; the eighth patient was relieved of all symptoms and signs except residual diplopia. The spinal fluid cell count was promptly reduced to normal in all; the protein content of the spinal fluid exhibited a similar but invariably slower reduction to normal levels. The blood serologic reactions were reversed to negative in five patients (or 62 per cent), became less positive in two patients and remained positive in another. The spinal fluid serologic reactions were favorably influenced in all; there was reversal to negative in six (or 75 per cent), and less positive in two (or 25 per cent).

VASCULAR NEUROSYPHILIS

Thirteen patients received combined artificial fever and chemotherapy because of vascular neurosyphilis. The records of 12 patients are complete to date; the thirteenth patient disappeared shortly after having attained an apparently favorable response to treatment. Of the 12 patients whose records are included in the analysis, all but one had received presumably adequate, but ineffectual, chemotherapy prior to the institution of artificial fever therapy.

The patients classified as having vascular neurosyphilis did not present evidence of meningeal involvement, but presented such subjective and objective manifestations of vascular neurosyphilis as headaches, dizziness, monoplegia, hemiplegia, aphasia, recurrent cerebrovascular accidents in the absence of evidence of arteriosclerosis, or convulsions, together with characteristic spinal fluid changes.

Of the four patients (or 33 per cent) who achieved complete remission, two had experienced cerebrovascular accidents followed by transient hemiplegia; there has been no recurrence in either patient during the three and five year intervals which have elapsed since fever-chemotherapy was given. One patient was improved, but some residual hemiplegia has persisted. Four patients (or 33 per cent) were not improved, while in three others (or 25 per cent) the disease progressed. One in this group died four months after finishing his last course of treatment. It is interesting to note that this patient was treated over a period of over two years and had received three courses of treatment. After each course marked improvement was noted, but his clinical status did not remain improved. Between the first and second courses of treatment he returned to his former occupation, but after the second course his disease progressed slowly and following the third course of treatment no improvement was noted. The blood serologic reactions were reversed to negative in three patients (or 25 per cent), became less positive in eight patients (or 67 per cent) and remained positive in one patient. The spinal fluid serologic reactions became negative in three patients (or 25 per cent), were less positive at the time of the last examination in six patients (or 50 per cent`, and have remained positive in three patients (or 25 per cent).

MENINGOVASCULAR NEUROSYPHILIS

The nine patients with meningovascular neurosyphilis whose records are complete exhibited various combinations of meningeal and cerebrovascular manifestations. In some, the vascular component was predominant while in others the meningeal involvement was more pronounced. The meningitic phenomena were promptly and favorably influenced in all. Eight of the nine patients (or 89 per cent) achieved complete clinical remission; the other patient experienced no improvement in the hemiparesis which had developed three months before artificial fever treatment was begun. The blood serologic reactions were reversed to negative in four patients (or 44 per cent), became less positive in four patients (or 44 per cent), and were unchanged at the time of the last examination in one patient. The spinal fluid serologic reactions became negative in five patients (or 56 per cent), and became less positive in four patients (or 44 per cent).

ASYMPTOMATIC NEUROSYPHILIS

It is now generally recognized that the best time to treat neurosyphilis with fever-chemotherapy is when the disease is first recognized in its asymptomatic phase. The now more common and eminently desirable practice of performing spinal fluid examinations before, during and after the course of antisyphilitic chemotherapy, has provided indisputable evidence of the high incidence of neurosyphilis. The extensive and carefully documented cooperative clinical studies made by Stokes,[11] Cole, Moore, O'Leary, Wile, Clark, Parran and Usilton revealed that abnormal spinal fluid conditions were present in 33 per cent of patients with early syphilis, and in 56.1 per cent of patients with late secondary syphilis. The same observers have also stated that "even thoroughgoing (chemical) treatment does not necessarily prevent the development of abnormalities of the spinal fluid" and that in latent syphilis "almost all the serologic response to be expected occurs within the first four months of treatment; thereafter, further (chemical) treatment has little effect". In our experience, the favorable response to combined artificial fever-chemotherapy has been most prompt in those patients who were referred to us for such treatment immediately after the diagnosis of asymptomatic neurosyphilis was first established. All but five of our patients with asymptomatic neurosyphilis had had presumably adequate chemotherapy.

In the 22 patients with asymptomatic neurosyphilis treated by us with artificial fever-chemotherapy, who have been observed at intervals for a sufficiently long period, the spinal fluid serologic reactions, cell count and protein content have been restored to normal in 11 patients (or 50 per cent). The serologic reactions of the spinal fluid showed a declining trend at the time of the last observation in nine additional patients (or 41 per cent). Thus there was improvement in the serologic status of 20 (or 91 per cent) of these patients. In the remaining two patients (or 9 per cent), the spinal fluid reactions were still positive at intervals of four and five years respectively. On the basis of prior experience, there is reason to anticipate that those patients who now exhibit a declining trend in serologic positivity and that those more recently treated patients whose reactions are still positive, will ultimately obtain a successful result. No patient who achieved serologic reversal has experienced either serologic relapse or any evidence of symptomatic neurosyphilis.

The responses in the blood serologic reactions closely paralleled those in the spinal fluid. Twelve of the patients (or 55 per cent) achieved negativity. Nine additional patients (or 41 per cent) exhibited less positive reactions, while one more recently treated patient had unchanged positive reactions at the time of the last observation.

It seems axiomatic to state, therefore, that the best treatment for neurosyphilis is to detect it in its incipiency and to prevent the later development of its disastrous consequences by the prompt administration of some form of fever therapy combined with chemotherapy.

In summary, it is interesting to note that the remission rate of all of the 208 well-documented cases of various types of neurosyphilis was 52 per cent. An additional 28 per cent of patients were improved by the treatment. Thus, a total of 80 per cent of the patients were benefited.

SUMMARY AND CONCLUSIONS

1. After a decade of rich and constantly enlarging experience with physically-induced artificial fever therapy, the successful results achieved by many workers in many lands are sufficiently comparable to justify the categoric statement that artificial fever therapy is at least as effective as malaria therapy in the management of symptomatic or asymptomatic neurosyphilis. In the hands of many reliable investigators artificial fever therapy has yielded significantly superior results. Patients who have not responded well to malaria therapy have been benefited by subsequent artificial fever therapy.

2. There is unmistakable evidence that the extent of clinical improvement in neurosyphilitic patients is related directly to the height and the duration of fever. The thoroughly documented analyses made by statisticians of the U. S. Public Health Service provide proof that the clinical responses were distinctly inferior when relatively low temperature levels were employed. There is no longer any valid reason to assume that the malaria plasmodium exerts any specific effect upon Spirochaeta pallida.

3. Several investigators who have had long experience with malaria therapy and with artificial fever therapy have abandoned malaria therapy in favor of artificial fever therapy. This decision was determined largely by the observations that patients tolerate artificial fever therapy more readily, that a high proportion of neurosyphilitic patients can be treated with artificial fever on an ambulatory basis without interruption of gainful employment, and that treatment complications are minimized with artificial fever therapy.

4. Since continuous hospitalization is not a requirement for the artificial fever treatment of most neurosyphilitic patients, the cost of the treatment is not necessarily greater than with malaria therapy. If the patient remains at his regular employment during the course of artificial fever treatments, the cost is usually much less.

5. The employment of auxiliary chemotherapy in conjunction with any type of fever therapy is an essential requirement. There is evidence that the concurrent use of chemotherapy with artificial fever therapy increases the therapeutic effectiveness of both agencies.

6. The hazards inherent in the various physical modalities used for the production of artificial fever during the first few years of the undertaking have been largely eliminated. Recognition of the physiologic changes produced by fever has led to the utilization of means to combat such effects. A procedure which was looked upon as a technical feat a decade ago may now be applied by skilled workers with a frequency which approaches routine.

7. Developments of the past few years have demonstrated that equally favorable clinical and serologic results may be obtained with fewer total hours of artificial fever therapy, applied in

shorter individual sessions at more frequent intervals. This practice permits the treatment of more patients at less cost.

8. The excellent results following the use of combined fever-chemotherapy in cases of asymptomatic neurosyphilis indicate that the patients' best interests are served by the prompt administration of this form of treatment.

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Essentials Of a Good Health Plan

Whatever the plan adopted for the small plant, these first essentials of any good industrial health plan should be incorporated:

First, the selection of only qualified and experienced industrial physicians, assisted by competent, fully qualified nurses.

Second, a general organization plan mobilizing the resources of the plant under the man responsible for the health and safety of the workers.

Third, the provision of adequate dispensary and hospital facilities for industrial-type injuries.

Fourth, pre-placement and periodic examinations of all workers.

Fifth, health hazards must be controlled at their source and a program of accident prevention undertaken throughout the plant.

Sixth, basic first aid instruction and advice on the prevention of occupational diseases must be given at least to key workers, if not to all workers.

Seventh, adequate, confidential records must be kept—this is where many physicians seem to fall down.

Eighth, plant sanitation, ventilation, lighting, and heating must be scrupulously supervised.

Ninth, the industrial physician should make a point of cooperating ethically with the worker's family physician and of using approved local hospital facilities where available.

Tenth, the industrial physician should know the industrial compensation laws applying to his plant.

As a direct result of the added burden that the war has put on its employees, industry today is paying much attention to helping them to obtain correct information on what to eat and how to prepare it for lunch box and home table.

The dissemination of information about nutrition now being made to workers by industry, government, and private agencies holds forth very great promise. In this activity there is an unprecedented opportunity for the application of the preventive approach. The cumulative educational value of a widespread program of nutritional education cannot easily be estimated. Many maladies and conditions now common to industrial workers could be prevented by proper nutrition, and time lost from work could be saved to the benefit of all concerned.

Many plants provide cafeterias in the factory itself, with pleasant, quiet surroundings, and assistance (when requested) in selecting a balanced diet.

Help is offered workers' wives in the selection and proper preparation of wholesome foods for home and lunch box in order to retain important food elements to the fullest degree.

One Eastern company engaged in important war work has converted its spacious showrooms, which in peacetime are furnished with complete kitchen equipment, into a classroom where workers' wives learn how to select proper foods and how to cook them to preserve food values. In the same city a public utility has similarly converted its peacetime salesroom to a war-time classroom, and the two companies have joined in providing an effective program of nutritional education for the public.—Victor G. Heiser, M.D., New York; Medical Record, Vol. 155, No. 11, July, 1942.

Tumors of the Mediastinum

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MANY tumors of the mediastinum are benign and can be successfully removed by operation with little risk. This is the most important clinical fact regarding these lesions. Benign growths will not respond to X-ray treatment. Surgical removal carries a low mortality rate unless undue delay brings on complications such as infection, pleural involvement or malignant change.

The following classification of mediastinal tumors is suggested.

TUMORS OF THE MEDIASTINUM

1. Embryological Rests
    - Dermoid—Teratoma
    - Aberrant Lung Tissue
    - Bronchiogenic Cyst
    - Aberrant Lobe
2. Neurogenic Tumors
    - Neurofibroma
    - Ganglioneuroma
    - Sympatheticoblastoma
3. Connective Tissue Tumors
    - Lipoma, Xanthoma
    - Fibroma—Fibromyoma
    - Lymphangioma—Hemangioma
    - Sarcoma
4. Primary Tumors of Lymph Nodes
    - Hodgkin's disease
    - Lymphosarcoma
    - Endothelioma
    - Boeck's Sarcoid
5. Primary Tumors of Thymus
6. Carcinoma of Mediastinum
    - Primary
    - Secondary
7. Echinoccic Cysts
8. Intrathoracic Goitre
9. Parathyroid Adenoma

We have observed well over 100 lymphoblastomata and malignant tumors. They will be mentioned only in differential diagnosis, since this discussion is concerned chiefly with the benign lesions.

Our experience is based upon the following material:

BENIGN TUMORS OPERATED BY THE AUTHOR

Age	Location	Pathological Diagnosis	Result
14 M	Anterior	Teratoma	Recovery
19 M	Anterior	Teratoma	Recovery
29 F	Posterior	Neurofibroma	Recovery
37 F	Posterior	Neurofibroma	Recovery
41 M	Anterior	Lymphangio-endothelioma	Recovery
46 F	Posterior	Hemangio-endothelioma	Recovery
53 M	Right Antero-lateral	Bronchial Cyst	Improved
21 F	Anterior	Accessory lobe with tuberculosis	Recovery
45 M	Anterior	Intrathoracic goitre	Recovery
65 M	Anterior	Intrathoracic goitre	Recovery
35 F	Anterior	Parathyroid Adenoma	Recovery
14 F	Entire left thorax	Chondroma	Death

MALIGNANT TUMORS OPERATED BY AUTHOR

41 F	Anterior	Hodgkin's Disease	Death
57 F	Posterior	Clear-celled Carcinoma	Not improved Metastases
65 M	Anterior	Small-celled Carcinoma	Apparently arrested following x-ray treatment
6 wks M	Posterior	Round-cell sarcoma	Death

BENIGN TUMORS—OBSERVED BY THE AUTHOR—OPERATED BY OTHERS

14 M	In pericardium	Dermoid cyst	Recovery
51 F	Posterior	Dermoid cyst	Recovery
16 F	In pericardium	Dermoid cyst	Death

Clinically and at post-mortem the following were observed: two teratomas of the anterior mediastinum, two benign thymomas, with symptoms of myasthenia gravis and two cases of neurofibroma of the posterior mediastinum.

SYMPTOMS AND SIGNS

Benign growths of the mediastinum may remain entirely asymptomatic. In the cases of the dermoids or teratomas, symptoms rarely occur before puberty. Neurogenic growths in the pos-

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terior mediastinum may produce symptoms in infancy or childhood.

The feeling of sub-sternal oppression or pain, pain radiating to the arms or shoulders, irritative unproductive cough and shortness of breath are the most common symptoms. Difficulty in swallowing or hoarseness may occur. The severity of the symptoms depends upon the rapidity of the growth and the size of the tumor.

Cyanosis of the neck and face, with distension of the veins of the neck and anterior chest wall may appear if the superior vena is compressed. Horner's syndrome suggests a lesion in the posterior mediastinum. The expectoration of hair may prove the diagnosis of dermoid.

Physical examination may show nothing or there may be asymmetry of the chest, diminished mobility with dullness and distant or absent breath sounds over the area involved.

All the symptoms and signs may be altered and confused if the tumor becomes infected and establishes a connection with the bronchial tree or pleural cavity. The symptoms of infection together with the signs of pneumonic and pleural involvement may so dominate the picture that it may be difficult to establish the presence of the growth.

After aspiration of pleural effusion and air replacement, x-ray may reveal the original mediastinal shadow. Often the diagnosis cannot be made under these circumstances without operation.

In all cases of myasthenia gravis a tumor of the thymus, usually benign, must be suspected. Reports show that over 50 percent of these cases have benign thymomas. Blalock[1] has reported the removal of such a lesion with prolonged arrest of the disease. His[2] recent experience suggests that the thymus should be explored in all cases of true myasthenia gravis. We have observed two cases of myasthenia gravis, recently, which at autopsy showed benign thymic tumors.

Neck dissection in cases of hyperparathyroidism may reveal no adenoma above the clavicle or in the posterior mediastinum. Experience[3] has shown that in about 10 percent of the cases, the tumor will be in the anterior mediastinum. Recently we found a parathyroid adenoma, after splitting the sternum, situated just below the left innominate vein.

DIAGNOSIS

While the symptoms and signs may suggest a mediastinal tumor, the diagnosis as to the type of tumor and the location cannot be made by them alone.

X-ray examination in different planes is the most essential procedure. In many cases for accurate localization, this must be supplemented by bronchoscopy, bronchography and arteriography. The picture of a sharply circumscribed spherical non-pulsating tumor in the anterior mediastinum suggests a teratoma, the same kind of shadow in the posterior mediastinum probably represents a neurogenic tumor. A tumor mass present in the midst of the mediastinal contents often is a lymphoblastoma, a metastatic gland or aneurysm. With the exception of these few hints, all the diagnostic procedures may not be adequate enough to establish the type of the tumor. However, a well circumscribed growth in the anterior or posterior mediastinum is usually benign and deserves surgical exploration. The decision regarding shadows in other locations or having ill-defined outlines requires a thorough study of the whole picture and often must be left to the judgment of the thoracic surgeon. Occasionally aspiration biopsy is indicated. However, it is only of value if positive and is attended by some danger. Arteriograms may be necessary to rule out aneurysm in centrally placed lesions.

PROGNOSIS AND TREATMENT

Should an asymptomatic benign tumor of the mediastinum be operated upon when it is discovered during the course of a physical or x-ray examination?

While these growths may remain quiescent over a long period of time, statistics seem to show that in most cases the growth will cause death by increase in size, malignant degeneration or infectious complications. Heuer and Andrus[4] observe that in 217 cases of dermoid cysts reported in the literature, 47 patients, who were untreated, died of the disease. In 18 cases of fibroma of the mediastinum, the 13, who were not operated, died because of the growth.

Consequently surgery must be considered in all cases of mediastinal tumors, regardless of the symptoms.

X-ray treatment may be useful in ruling out lymphoblastoma. However, it is wise not to give it until after the case has been seen by a thoracic surgeon. The benign tumors will not respond to x-ray treatment.

Operation should be recommended for all benign tumors such as teratomas, neurogenic tumors, cysts, lipomas, intrathoracic goitres, thymomas, etc. The malignant tumor and lymphoblastoma should not be operated upon if the diagnosis can be established in any other way.

OPERATION

The operative procedure will be only briefly discussed. Intratracheal anesthesia with nitrous oxide, oxygen and ether or cyclopropane is useful because the operations are transpleural.

For large growths we use a postero-lateral approach through an interspace or periosteal bed of a resected rib. When the growth is small, either an anterior or posterior incision is used. A small section of rib directly over the tumor is resected.

Every effort is made to completely remove the growth in one stage. Two stage operations, partial removal, marsupialization or drainage are usually not successful.

The pleura is closed tightly with the lung expanded. Postoperatively, effusion and air are frequently aspirated from the pleural cavity in order to reduce the chance of infection.

For benign growths uncomplicated by infection, the mortality rate should be low. In most cases the tumor can be completely removed in one stage. In the twelve operations for such lesions in this series, there was one death. This was in a case of chondroma which filled the entire left pleural cavity and could not be completely removed.

A few brief case histories will illustrate this report.

TERATOMA

A. L.—14-year-old male—admitted to Mt. Sinai Hospital on January 8, 1936. He complained of pain in the left chest of several months duration. This pain was worse on exercise.

Examination revealed fullness of the left anterior chest with diminished respiratory excursion in this area. There was dullness and absent breath sounds over the upper half of the left anterior chest. X-ray revealed a large dense sharply circumscribed circular shadow coming from the anterior upper mediastinum.

On January 12, 1936, the pleura was opened through a postero-lateral incision after removal of a portion of the sixth rib. A large well encapsulated tumor mass attached to the pericardium and great vessels was removed. It measured 13 centimeters in diameter. The pathological diagnosis was teratoma containing sebacous material, hair, cartilage, bone, smooth muscle, nerve tissue, etc. Recovery was uneventful.

NEUROGENIC TUMORS

K. D.—29-year-old female—admitted to Cleveland City Hospital on June 16, 1939. For several years she had complained of a backache which had become more severe recently. Physical examination was negative. X-ray examination revealed a dense circular shadow in the left subapical region posteriorly.

Through a posterior incision small sections of the fifth and sixth ribs were removed exposing a hard grayish-yellow encapsulated tumor firmly attached to the fifth intercostal nerve near the foramen. It measured four centimeters in diameter. Histologically it proved to be a neurofibroma. Recovery was rapid and complete.

LYMPHANGIO-ENDOTHELIOMA

P. P.—41-year-old male—was admitted to Lakeside Hospital on May 17, 1938. For six months he had had an irritative unproductive cough. There was a feeling of fullness in the right lower chest. X-ray showed a pyramidal shaped dense sharply demarcated mass in the anterior portion of the right lower chest, adjacent to the heart shadow.

On June 25, 1938, through an anterior incision in the fifth interspace, the pleura was opened. A tumor attached to the pericardium and well encapsulated was found lying between the lower and middle lobes, to which it was lightly adherent. It was easily shelled out and measured about eight centimeters in diameter. On section it presented a gray surface with irregular spaces. Histologically, there was dense fibrous connective tissue surrounding groups of polyhedral cells. There were a large number of dilated channels lined with endothelial cells. A diagnosis of lymphangio-endothelioma was made. Recovery was complete except for a pre-operative anemia which has persisted.

ABERRANT PULMONARY LOBE

G. R.—21-year-old female—was admitted to Cleveland City Hospital, on April 10, 1936. Six months before admission she had a child. Shortly following labor the patient developed a cough which had persisted. This was productive of mucous. There was occasional precordial pain and palpitation. The appetite was poor and there was a weight loss of about 35 pounds. There were occasional night sweats.

Physical examination showed diminished resonance over the left anterior chest with distant breath sounds. The temperature varied between 37°C and 38°C. Leukocyte count was 17,500, red blood count 4,000,000. The differential count was normal.

Sputum examination was negative for tubercle bacilli. X-ray showed a moderately dense mottled shadow containing irregular areas of calcification. This mass was attached to the mediastinal shadow and protruded into the left mid chest. The lung fields were clear. On the diagnosis of Hodgkin's disease, four x-ray treatments were given. The fever became higher and the cough more productive. X-ray at this time showed a fluid level in the mass. A diagnosis of teratoma with rupture into a bronchus was made. An incision in the third left anterior intercostal space was made on June 13. An elongated tumor mass, yellowish-brown in color, was encountered attached to the mediastinum anteriorly, the chest wall and lower lobe. It presented in the fissure between the upper and lower lobes which were intact. The adhesions were separated with some difficulty and the tumor was removed. The growth measured eleven and five-tenths centimeters by seven and five-tenths centimeters by three and five-tenths centimeters. Surface was smooth and covered by plura.

On section there were numerous areas of caseation with intercommunicating cavities. Many small white areas studded the section. Histologically it proved to be an accessory pulmonary lobe with congenital atelectasis, the seat of active conglomerate tuberculosis. The patient made a rapid recovery and was discharged from the hospital on July 6, 1936. When we last heard from her about two years ago, she was well.

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Management of Acute Infections of the Hand

VINTON E. SILER, M.D.

INFECTIONS of the hand are frequent and recovery is usually tedious. It is timely to consider such lesions since many primary infections and infected wounds of the hand occur in industry. The patient not only suffers an economic loss but in many instances serious and permanent disabilities result. Industry is affected as well as the patient and the "workman hours" lost each year are enormous. With defense production rapidly increasing its pace, able workmen are more essential than ever before to industry. From a surgical standpoint adequate early treatment of the infection in the hand is not only difficult, but frequently out of all proportion to the size of the lesion. We have observed that such infections disable a patient eight to ten times as long as acute appendicitis.

For these reasons fundamental surgical principles must be followed in the management of infections in the hand if treatment is to be followed by success. Kanavel,[1] Koch,[2] Mason[3] and others are largely responsible for a sane approach in treatment of the important delicate functioning hand. Re-emphasizing, these principles are:

1. Early recognition of infection.
2. Localization of infection.
3. Adequate drainage when infection is localized.
4. Sterilization of the infected area.
5. Grafting of granulating surfaces.
6. Restoration of function.

EARLY RECOGNITION OF INFECTION

Practically all infections in the hand are the result of injuries which provide the portal of entry for the organisms. It is natural for the individual to consider a small injury as trivial and seek medical attention only after infection has gained a strong foothold. On the other hand, the patient is not always to blame for such negligence. Frequently, the physician or surgeon fails to recognize the seriousness of the initial lesion. The best surgeon cannot make a diagnosis of an early infected hand over a telephone with any more accuracy than he can make a correct diagnosis of the pathological process in the acute abdomen by the same method. It follows, then, that in many instances early recognition of infection and early treatment may abort a more serious lesion which often endangers not only the involved hand but occasionally the life of the patient.

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LOCALIZATION OF INFECTION

It is important that localized infections be distinguished immediately from spreading types of infection. In localized infections such as paronychia, felon, suppurative tenosynovitis or fascial space abscesses, drainage should be instituted without delay. In focal or spreading cellulitis, as in lymphangitis, the treatment is conservative until surgical intervention is indicated. In these cases localization of infection is brought about largely by an increase in blood supply to the involved region. This is the natural response of the body to bacterial invasion. The surgeon can help this defensive process by placing the hand at rest on a sterile aluminum splint as advocated by Koch.[4] Warm, moist, sterile dressings of either physiological saline or boric acid solutions are helpful. These may be constantly warmed by the use of hot water bottles or by using a thermostatically controlled electric oven. We have found the Vapo-Therm to be a very helpful device in obtaining warm moist heat. This instrument is an electric steam oven easily regulated by a thermostat. Alternating moist and dry heat will usually prevent "water logging" of the tissues. The exchange of fluid in the involved arm may be greatly improved by proper elevation.

The use of sulfonamide drugs systematically has certainly been helpful in inhibiting the spread of infection in cases of diffuse cellulitis. It is difficult to say with any degree of accuracy that these drugs have hastened focal suppuration. The usefulness of small whole blood transfusions given frequently should not be minimized. These two types of special therapy have been exceedingly helpful in certain fulminating diffuse infections, such as result from a human bite. We have not resorted to specific antitoxins, polyvalent vaccines or serums in treating our patients and only in rare instances has x-radiation been used.

Other general measures, as bed rest, sedation,

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adequate oral or parenteral fluid intake, and dietary measures are employed to help localize the inflammatory process.

ADEQUATE DRAINAGE WHEN INFECTION IS LOCALIZED

As soon as the process is well localized and cellulitis or lymphangitis has subsided, drainage should be established. Our experience has been that in many cases we have neglected to maintain adequate or complete drainage of the involved part which explained not only the delay in wound healing but also unwarranted damage to vital structures. For example, in acute suppurative tenosynovitis, drainage of the tendon sheath in the finger may be done, but if the wound is to heal rapidly and with least damage to the sheath, drainage must also be maintained in the proximal portion of the sheath in the palm of the hand.

The exact surgical technique which we have used for over two years is that advocated by Koch and Mason. The patient is operated upon under general anesthesia unless there are contraindications to it. When asleep the skin of the hand and forearm is gently cleansed with soap and water for ten minutes. As these observers point out, serious damaging procedures result unless one operates in a bloodless field. A blood pressure cuff placed high on the arm and inflated to a level of 260 mms. of mercury after removal of the venous blood insures this precaution. With anatomical knowledge of the hand and extreme caution, the surgeon can now make careful incisions to accomplish his purpose. In this way the dangerous pitfalls of cutting digital nerves, arteries and veins, as well as, pulleys and other vital functional structures are avoided. The use of a large knife blade in operating upon the hand is inexcusable. A small knife blade (No. 15 Bard-Parker) is sufficiently large to carry out such a delicate procedure. When adequate drainage is accomplished the infected area is then thoroughly irrigated with physiological saline solution. The use of rubber or other traumatizing types of drains are to be discouraged since they cause further necrosis. If drainage has been adequate, the wounds may be carefully packed with vaselinized gauze. In order to keep the skin edges apart, we have packed the angles of the wounds with narrow iodoform gauze strips. The hand is placed on a dry, sterile aluminum splint in a comfortable functional position and a sterile dressing is applied. This dressing remains untouched for 48 hours when the initial dressing is done. All packing is removed and except in rare instances drains are not reinserted. During this time all general measures to combat infection are employed.

STERILIZATION OF THE INFECTED AREA

The type of bacterial flora of the infected wound probably governs the rapidity with which sterilization can be secured. If anaërobic and aërobic organisms are present, as in human bite infection, the use of zinc peroxide solution as advocated by Meleney[5] is a most useful agent. When infection is due to the staphylococcus or hemolytic streptococcus, control of the organisms usually can be achieved by careful toilet of the wound and daily irrigation with physiological saline solution or Dakin's solution.

The local use of sulfonamide powder for sterilization of these wounds needs cautionary comment. The exact response of all tissue to these compounds has, as yet, not been determined. In many instances the topical application of sulfanilamide cystals can do no harm; however, if a tendon and its sheath are exposed, indiscriminate use of these drugs may add more damage to an already impaired hand. Until it is clearly shown that the sulfa compounds do not cause adhesions, greater dividends might well be secured by their restricted use. One clinical observation stands clearly in our minds—that when the infected hand is diagnosed early and when properly placed incisions adequately drain the infected area, healing has progressed rapidly and the final functional result has been gratifying.

Attention is also directed to the possibility of cross or secondary contamination of wounds of the hand. Meticulous careful aseptic surgical handling of these wounds is essential to the welfare of the patient. Too frequently, the interne or the surgical resident dress these wounds with their bare fingers, only because their superiors have molded the pattern. Most of us have been guilty of hurriedly removing a dressing and in order to determine a source of trouble palpate about open wounds. Such methods are to be discouraged.

GRAFTING OF GRANULATING SURFACES

Granulating wounds of the hand are no different than similar wounds elsewhere in the body. Any granulating surface which is 2 cm. or larger in diameter should be grafted. Early replacement of skin is beneficial to the patient and to the surgeon. Many contracting bands of the fingers and palm of the hand could be prevented with proper early grafting.

RESTORATION OF FUNCTION

This principle in the management of hand infections has been sorely neglected. It is not sufficient treatment to operate upon the infected hand and get a healed wound. In so far as possible every attempt should be directed toward as normal a functioning hand as possible. Many cases are recognized early as being permanently disabled and present a challenge to the surgeon who possesses patience and skill to correct the abnormality. On the other hand, many cases are not restored to full function simply because of improper surgical care, inadequate instruction to the patient, lack of active and passive functional exercises and finally failure of the surgeon to follow the postoperative course of his patient closely.

To obtain a good functional result intelligent plans to obtain this end must be started early. Splinting an infected hand is all important, but as Koch has advocated it must be done wisely and with a purpose. There is no substitute for early active gentle motion. When the infected hand is dressed each day, limited active motion should be instituted. As the infection subsides more activity is encouraged. When wounds are well beyond the danger zone or are healed, soaking the hand and forearm in a saline or soapy arm bath yields results. At this stage of progress the patient needs careful instruction regarding passive joint motion which they can do alone. Squeezing a soft rubber ball or rubber sponge, while the hand is in a bath, is an excellent method of accomplishing active motion. Kind encouraging words to the discouraged patient will many times help to rehabilitate a temporarily crippled hand.

Permanent disability can only be evaluated by careful follow-up examinations over a period of months. In the Hand Clinic at the Cincinnati General Hospital we attempt to carry out such a program. There are those cases with a poor functional result after infection which are greatly improved by secondary plastic procedures. Careful month-to-month examination will not only determine what can and should be done, but the optimum time for secondary surgical intervention will be determined.

SUMMARY

Following these fundamental surgical principles the management of infections of the hand in our Clinic has greatly improved. With the increase in trauma to the hand in industry and the excess burdens of those surgeons who care for them, the tendency to use "slip-shod" surgical methods may become a common practice. If such a state does occur, the patient, industry, and the surgeon will then suffer. The principles as outlined are worthy of thoughtful consideration.

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Jaundice

The significance of jaundice is readily appreciated if one bears in mind the idea that within the body there occurs a normal process of constant destruction of red blood cells, with the liberation of hemoglobin which is converted into bilirubin; not in the epithelial cells of the liver, but in the reticulo-endothelial system, specifically in the Kupffer cells. An excess of bilirubin in the body fluids with resultant jaundice of varying degree, is usually due to one of several causes: (1) an accelerated rate of destruction of red blood cells and the production of bilirubin in excess of the capacity of the liver to excrete it, (2) injury to the hepatic cells of the liver by infections or toxic agents, with a consequent decrease of the excretory capacity of the liver, or (3) mechanical interference within the bile passages to the free flow of bile into the intestinal tract.—Verne C. Hunt, M.D., Los Angeles, Calif.; Southwestern Med., Vol. XXVI, No. 7, July, 1942.

Urticaria

Urticaria is a common dermatosis characterized by the presence of wheals, pruritus or "hives" as the sole primary signs. The lesions develop rapidly to a variable intensity, are associated with pruritus, and may rapidly regress, leaving no visible marks in the acute type. The lesions may appear on any part of the body. Many of us are acquainted with that type of giant urticaria involving the lips and mucous membranes of mouth and throat, where breathing becomes difficult and we were wary of the patient's welfare before the swelling subsided. In the acute types there is frequently a history of previous ingestion of unusual foods e.g., shell fish and sea food, or strawberries, or the ingestion of some article of diet to which the patient, from previous experience, has been known to be sensitive. Drug ingestion may also be a factor. In these cases withdrawal of the drug, local soothing therapy, starch baths, alkalies, and a mild laxative together with calcium or sodium thiosulphate by intravenous injection are often helpful in shortening the period of the acute attack.

Chronic urticaria is a much more formidable therapeutic problem. It is wise to forbid the use of alcoholic beverages, check carefully the injection of all drugs, e.g., aspirin, and try to establish a "time relation" between the ingestion of commonly known offending foods and the appearance of the eruption. In protracted cases the use of elimination diets may be of value. The factor of emotional tension must also be considered, and in these cases the use of calcium gluconate by injection or per os, or the use of autohemotherapy can be considered.—Max S. Wein, M.D., Chicago, Ill.; Medical Record, Vol. 155, No. 11, July, 1942.

The Mechanism for the Production of Kidney Complications in Sulfonamide Therapy

RAYMOND W. MONTO, M.D.

Since the advent of the sulfonamide drugs in the treatment of infection, the kidney complications have been among the most feared. Little is known about the pathologic physiology of renal disease in man as produced in sulfa drug therapy. These facts make the subject desirable and timely. It is the purpose of this paper to: (1) emphasize conditions which foster kidney damage, (2) discuss the genesis of renal lesions, and (3) point out the rationale of treatment.

In a consideration of the chances for the occurrence of kidney disease in an individual receiving the drug, the following points must be kept in mind:

1. Previous kidney damage.
2. Toxicity of the disease.
3. Patient's idiosyncrasy to the drug.
4. Quantity of drug given in a unit of time.
5. General condition of the patient.
6. Sulfonamide drug used.

In kidneys whose function has been impaired by previous disease, complications are most frequent. It is obvious that kidneys with impaired function handle toxic material less well and have a smaller reserve. The sulfa drug can be used, however, in very small amounts with careful observation as has recently been shown by Helmholtz[1] in the treatment of chronic urinary tract infections in the presence of marked renal insufficiency. Where there is evidence of marked kidney damage, one must balance the severity of the disease with the possibility of the complication.

Early studies on the absorption, excretion, and the distribution of sulfonamides were carried out on normal healthy individuals[2] and in animals receiving huge dosages[3]. This point has led to many misconceptions of the fate of the drug in the diseased organism. Certain infectious diseases produce a specific nephrotoxin which of itself is quite capable of producing renal damage. By giving patients sulfa compounds, we undoubtedly add to the amount of toxic material carried to and affecting the kidneys.

There is considerable variation in the manner in which patients metabolize sulfanilamide and its derivatives. There is a large group of patients in which various sensitivity reactions and idiosyncracies to the drug occur. The explanation for these phenomena is not clear. It has been shown that individuals showing sensitivity to one of the sulfa derivatives usually have similar reactions to the others of the same group.

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Dosage plays a major part in the production of renal lesions. The body appears to tolerate small amounts of the drug almost indefinitely. The other extreme is illustrated by complete anuria as produced by a single intraperitoneal dose of the drugs in rats as reported by Antopol[3]. In usual chemotherapy the blood level is controlled directly by the amount of drug given and indirectly the amount of toxic material carried to the kidneys. Excessive blood levels, hence, are more likely to produce renal complications. Since the use of sulfonamides became popular in the treatment of burns[4], and peritonitis, we have seen remarkably high blood concentrations because of the rapid absorption of the drug from these areas. The dehydration which usually accompanies the above named conditions, augments the chance of renal damage.

The opportunity for the development of renal insufficiency in the patient who is in good nutritional state is less than in a group where malnutrition, dehydration, anemia, and shock are present. The reason for this statement is apparent.

Little severe damage to kidneys has been reported following the use of sulfanilamide. It has been used successfully in face of known renal damage. Sulfapyridine is peculiar in that it produces renal calculi more frequently than the other sulfa compounds. The damage produced is chiefly that resulting from mechanical blocking of the ureters. Sulfathiazole approximates the dangers encountered in sulfapyridine therapy insofar as the kidneys are concerned. The lesion produced by sulfathiazole is primarily renal. Final evaluation of sulfadiazine has not been accomplished, although Finland[5] reports a low incidence of renal complications in a series of over 400 cases. It has been the practice of others, however, to employ the same precautions with the

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Submitted June 22, 1942.

From the Department of Medicine, Henry Ford Hospital, Detroit, Michigan.

use of sulfadiazine as customary in sulfathiazole therapy.

Unfortunately, statistics concerning the occurrence of renal damage in sulfa drug therapy are not adequate for true evaluation of their toxicity. Certainly many individuals suffer from the complication without signs or symptoms. Loewenberg[6] illustrated in his report how extensive kidney damage can be without clinical evidence of insufficiency.

There are four mechanisms by which kidney lesions and anuria can be produced by sulfa drugs. Two of these are extra-renal and two intra-renal.

Sulfonamides are toxic materials and may act upon the kidneys in a manner similar to other renal irritants to produce a toxic nephritis. In this instance, one finds extensive damage in all parts of the nephron, particularly in the tubules. A second intra-renal lesion is found in those patients in whom a pre-existing nephritis was present, and where there is faulty reabsorption of the drug in the convoluted tubules, resulting in increased concentration and deposition of the drug in a crystalline form in the tubules[7]. In this respect Rheinhold, et al[8] noted that sulfathiazole and sulfadiazine were not as readily absorbed from the kidney tubules as were the other sulfa drugs.

The first case in which crystalline sulfathiazole was found in renal tubules in man was reported by Pepper and Horack[0]. More recently Loewenberg[6] et al were able to identify the conjugated sulfathiazole chemically in their case. There have been relatively few reports of the drugs being found in crystalline form in renal tissue of patients suffering this complication. Various explanations have been offered to account for the paucity of cases published. Difficulties have been attributed to the fact that the crystals are dissolved out in routine preparation. However, certain anhydrous techniques have been no more successful.

A third group is typified by the report of Wolcott[10] who reports a case in which anuria and anemia resulted from intravascular hemolysis as produced by sulfanilamide. There have been other similar cases reported in which death occurred. The lesions simulated those produced by transfusion incompatabilities. The kidney units were found to be filled with the debris from destruction of red blood cells, chiefly acid hematin.

Fourthly, extra-renal sulfonamide anuria is produced by plugging of both ureters with calculi of the drug. Sulfapyridine characteristically produces this type of lesion, and sulfathiazole to a lesser extent. These patients may initially present the signs and symptoms of renal colic. There may, of course, exist a combination of methods for production of anuria.

Several facts would cast doubt upon the principle that most of the anurias were caused by precipitation of the acetylated drug in the tubules as claimed by most observers.

When one considers the amount of each of the various sulfa drugs which is excreted in the acetylated form, and the solubility of each of these compounds, and the occurrence of renal damage from each; there appears to be little relationship quantitatively. Anuria has been produced by exceedingly small doses of the sulfonamide compounds.[11]

Within the last year at the Henry Ford Hospital there have been three deaths resulting from anuria which were attributed to the administration of the sulfa drugs. Two of the patients received sulfathiazole and the other was given sulfadiazine. The kidneys in each case were analyzed chemically for the amount of free and acetylated drug; the results of which appear in Table 1.

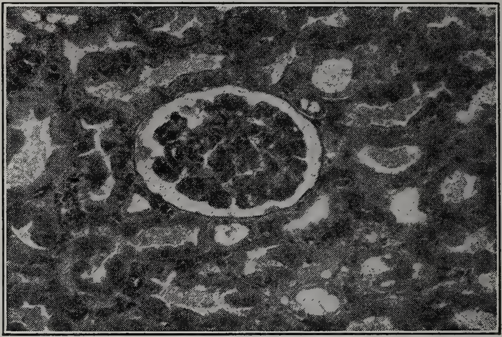

Figure 1. Photomicrograph of the kidney cortex of Case 1 illustrating marked degenerative changes in the convoluted tubules. The glomerulus is swollen and congested.

TABLE 1

CLINICAL ANALYSES OF KIDNEY TISSUE IN SULFONAMIDE ANURIA

Case	Sex	Age	Dosage	Free Drug	Acetylated Drug
1	M	53 yr.	52 gm S.T.*	35.9 mgm %	15.3 mgm %
2	M	5 mo.	1 gm S.T.	7.2 mgm %	4.6 mgm %
3	F	34 yr.	16 gm S.D.**	3.1 mgm %	16.0 mgm %

**Sulfadiazine.

*Sulfathiazole.

METHOD OF ANALYSIS

Two to four grams of kidney tissue were obtained at the postmortem table. In several instances cortical and medullary tissue were examined individually with identical results.

The material was ground well in sand with aid of mortar and pestle. Distilled water was then added and the protein precipitated after which the mixture was filtrated. Free drug determination was made on a small part of the filtrate; the remainder was added to the precipitated protein and this latter mixture boiled with hydrochloric acid. The mixture was again filtrated and a total determination was made. The difference between total and free concentrations represented the amount of conjugated drug present.

AUTOPSY REPORT

In each instance, the kidneys were markedly swollen, the capsules stripped with ease. Cut sections revealed rolled edges with pink swollen cortices and dark purple pyramids. The pelves were not unusual. No evidence of urinary obstruction was found.

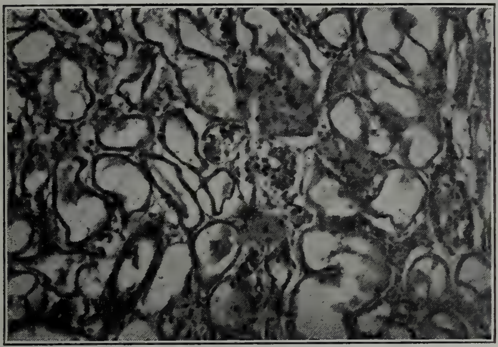

Figure 2. Photomicrograph of the kidney cortex of Case 2 showing the lining cells of the convoluted tubules to be swollen, fragmented and markedly degenerated.

Microscopic sections in general revealed congested glomeruli. The most marked changes were seen in the convoluted tubules. The lining cells showed varying degrees of cloudy swelling, necrosis, and desquamation filling the tubules with cells and hyaline albuminous casts. Cellular casts were noted in two of the cases. The distal collecting tubules were frequently found plugged with pink staining material which in some areas was clear and hyaline in appearance. Special techniques used in an effort to demonstrate crystals were not productive.

Figure I illustrated a microscopic section from the kidneys of Case 1, and figures 2 and 3 from Case 2. Similar lesions have been reported in the experimental animal after the administration of sulfa drugs by Rake, Van Dyke, and Corwin.[12]

A case of sulfapyridine anuria not included in this series of analysis showed essentially the same tubular damage described above.

It would appear that if the anuria were produced by mechanical blocking of the tubules with acetylated drug, the quantitative analysis would show a much higher concentration of the acetylated form in the kidneys. Actually one finds little difference between determinations obtained in these cases as compared to those of kidneys obtained at necropsy in individuals who died of other causes.

Plugging is noted to be chiefly in the collecting tubules and was not seen in the convoluted tubules. Anuria due to complete occlusion of collecting tubules has been previously reported in cases of multiple myeloma, in crush syndrome, etc. The picture in the kidneys reported resembles strongly those seen in fatal anuria resulting from crush injuries[13].

Treatment of sulfa drug anuria is chiefly prophylactic. In individuals receiving the drug in amounts exceeding 3 gm. per day, a careful recording of intake and output is essential. Fluid intake to 3500 cc. is advocated and the urinary output of 1500 cc. is advisable. It requires approximately this amount of fluid to keep the acetylated drug in solution. Any toxic material is best eliminated by the kidneys when the fluid exchange is high.

Of equal importance is the daily determination of the blood level of the drug. A sudden increase in the amount of sulfonamide circulating in the blood is one of the earliest signs of kidney failure and runs parallel to the increase in nonprotein nitrogen in early phases of the disease. Some observers suggest the use of alkali on the basis that the acetylated drug is more soluble in alkaline solutions. Clinical use has shown this to be of doubtful value.

Daily urinalysis in search of albumin and blood cells should be carried out. The finding of sulfa crystals is of little significance except in freshly voided specimens. Cooling of the urine to room temperature greatly augments the precipitation of the drug. There also exists confusion as to the type of crystal[14] (free or acetylated drug) and to its identity[15]. Some of the amino acids and normal constituents of the urine crystallize out to make their identification difficult.

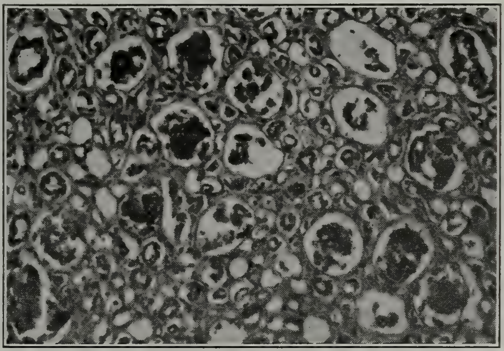

Figure 3. Photomicrograph of the kidney medulla of Case 2 where the lumina of the collecting tubules are seen to be plugged by pink staining material which in some areas is clear and hyaline in appearance.

At the first sign of renal failure the drug should be stopped. When anuria occurs, immediate catheterization of both ureters is indicated. If the patient has signs and symptoms of renal colic with diminution of renal output, he should be catheterized at once. In the event that mechanical blocking is encountered, every effort should be made to wash the pelvis free with warm saline, and to dislodge the calculus.

Should it be found that the anuria is not mechanical, the usual therapeutic measures of anuria are to be carried out. Fluids should be forced to 5,000 cc. in 24 hours; intravenous glucose, heat to renal area, blood transfusions, alkalis, aminophyllin, etc. should be used. Surgical stripping of the renal capsule has resulted in resumption of kidney function in a few reported cases. In patients who have recovered from anuria, a remarkable return of kidney function has been reported by Smith[16].

SUMMARY AND CONCLUSIONS:

1. Various factors which aid in the production of kidney damage by sulfonamide therapy are discussed.

2. The mechanism for the genesis of various types of renal lesions produced by sulfa drug therapy is reviewed.

3. Chemical analyses and microscopic sections of kidneys of three patients who died of uremia while on sulfonamide therapy would indicate that the chief lesion in renal anuria was an acute nephrosis produced by the toxic action of the drug, rather than obstruction of the tubules by crystalline acetylated drug.

4. The rationale of the treatment of intrarenal and extra-renal anuria as produced by sulfa compounds is pointed out.

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Stricture of the Common or Hepatic Duct

Even though congenital atresia of the extrahepatic bile passages is occasionally encountered and constitute a major surgical problem, I wish to refer briefly and only to postoperative stricture of the bile passages. The sequelae of accidental division of one of these ductal structures, excision of a segment of the duct, or its inclusion in a suture or ligature in the course of cholecystectomy, are such that, irrespective of surgical repair of the injury, many patients in whom such injury has been sustained are destined to a life of ill health characterized by recurrent fever, chills, and jaundice. The prevention of such injury may be facilitated only through possession of an intimate knowledge of the anomalies of the ductal and vascular structures and as these structures may be altered in their appearance and in their anatomic relationships in the presence of intra and extra biliary tract disease.

Visualization of the ductal structures during the course of cholecystectomy provides the means by which injury to and subsequent stricture of the ducts can be prevented. Once injury has been sustained and stricture develops, the method of repair which may be utilized is an individual matter as pertains to the nature and location of the stricture and as to whether or not an external biliary fistula exists or has been established. Without discussing at this time the various surgical procedures that may be employed to repair the injury to the ductal structures, or that may provide suitable passage of bile from the liver to the intestinal tract, it may be stated that the safety of these surgical procedures through modern preoperative treatment and control of the hemorrhagic tendency has been materially enhanced. In general it may be stated that the transplantation of an existing or previously established biliary fistula into the upper gastro-intestinal tract has not been followed by sufficiently satisfactory results to remain a desirable operation. Anastomotic restoration of ductal duodenal continuity over a tube just above the stricture or at the hilus of the liver when it can be accomplished is usually followed by results superior to other reconstructive procedures.—Verne C. Hunt, M.D., Los Angeles, Calif.; Southwestern Med., Vol. XXVI, No. 7, July, 1942.

Sulfonamide Anuria

WALTER A. KEITZER, M.D. AND JOHN A. CAMPBELL, M.D.

SULFONAMIDES have revolutionized treatment, prognosis, and results in several bacterial diseases. The current literature contains many articles emphasizing their value. When sulfonamides are used, their complications must be kept in mind. Except for the rare agranulocytic angina, the renal complications are the most important. The renal complications are not rare. Gross and Cooper[1] in an article in press at the present time, reviewed 128 cases of sulfapyridine urinary complications. These include microscopic and gross hematuria, urolithiasis, renal colic, urinary suppression, and death. Kawaichi and Barnes[2] reviewed the literature on urinary calculi due to the sulfonamides. They added 10 cases to the review, which they had observed and treated. In all, they described 20 cases of sulfapyridine, seven of sulfathiazole, and two from a combination of both drugs. There were three deaths attributable to sulfapyridine anuria, and three deaths attributable to sulfathiazole anuria. All of the patients that died were treated "conservatively". None of the nine patients treated by ureteral catheterization and lavage died from urinary suppression. It would seem that the term "conservative" treatment is somewhat misleading. In addition to Kawaichi's review of the literature, there are five other reports of sulfapyridine anuria with one death.

The new sulfonamide sulfadiazine was heralded as a drug without ability to produce significant renal damage. To date, there are four anurias reported due to sulfadiazine. In this group there was one death. We have reported in the J.A.M.A., the renal complications of sulfadiazine. There were 11 case reports with four anurias. We have found that sulfadiazine is as dangerous as the other sulfonamides. We believe that there exists a false sense of security regarding the safety of sulfadiazine.

In all, we have observed and treated eight cases of sulfonamide anuria. There has not been a fatality in our group. At this time we wish to add two more cases of sulfonamide anuria to the increasing total. We believe that they will emphasize points characteristic of any sulfonamide anuria. The drug agent in both of these cases was sulfapyridine. We were introduced to sulfonamide anuria with the first case here reported.

CASE REPORTS

Case I—L. S., a 32-year-old white male, was admitted to Akron City Hospital with the diagnosis, bronchopneumonia. He was given 2 Gm. of sulfathiazole on admission; this was repeated in four hours. The drug was changed to sulfapyridine, and he was given 2 Gm. of sulfapyridine six hours after admission. Sulfapyridine was then given as 1 Gm. every four hours. Citrocarbonate and sodium bicarbonate were used to alkalinize the urine. On 11-26-40, the sulfapyridine blood level was 4.3mg. percent. On 11-27-40, pain and tenderness appeared in the R.L.Q. bilaterally. The drug was then discontinued. He had received 4 Gm. of sulfathiazole and 17 Gm. of sulfapyridine. On 11-28-40, a fine morbiliform rash appeared over the hips and lower extremities. Three thousand cc. of fluids were given intravenously. The oral intake was unmeasured. The total output was 330 cc. The urine showed one plus albuminuria. Many R.B.C. were present in the urinary sediment. On 11-29-40, the N.P.N. was 90 mg. percent. The patient was drowsy and listless. Abdominal tenderness was increasing. Nausea and vomiting were intractable. Facial edema was present. There was abdominal distention. The urinary output was 180 cc. Albuminuria was still one plus. The urinary sediment was loaded with R.B.C. Three thousand cc. of fluid were administered intravenously without provoking diuresis. Urologic consultation was sought. Cystoscopy was performed. Both ureteral openings were gaping with solidly packed crystals. The right ureter was catheterized and 10 cc. of muddy syrupy urine were obtained.

After excessive lavage, the catheter was removed. The left ureter was impassible, due to the crystals. On 11-30-40, anuria was complete. The patient was comatose. The N.P.N had dropped to 74 mg. percent. Cystoscopy was again performed. This time the right ureter was impassable. In attempting to dislodge the obstructing crystals, the tip of the plastic ureteral catheter was broken off in the ureter. The left ureter was catheterized, the catheter left indwelling. The indwelling ureteral catheter was aspirated and irrigated with warm, normal saline at frequent intervals. This catheter was removed 12-5-40. On 12-7-40, cystoscopy was again performed. The right ureter was again impassable. The end of the ureter was cut. The broken tip of the catheter was safely recovered. Two obstructions were met and overcome. An indwelling

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catheter was inserted. This catheter was aspirated and irrigated at frequent intervals with warm, normal saline. The muddy, syrupy urine escaped from this pelvis as it had from the other. This catheter was removed, 12-10-40. On 12-11-40, I.V. pyelograms showed impaired renal function of the right kidney. On 12-13-40, the urine was free from R.B.C., and the N.P.N. was normal after a slow progressive decline. The patient was discharged, 12-14-40, completely relieved.

This patient was again studied, 1-6-41. Cystoscopy and kidney function tests were done at this time. Both kidneys were normal.

Case II—D. L., a six-year-old white male child, was diagnosed bronchopneumonia, on 12-12-40. He was treated at home. Sulfapyridine 1 Gm. was given stat. This was repeated in four hours. Sulfapyridine was given then as 0.5 Gm. every four hours. The drug was discontinued on 12-16-40, due to the clinical cure of the patient. On 12-18-40, fever reappeared. Two doses of 0.5 Gm. of sulfapyridine were given that day.

Late that evening, the patient complained of pain and tenderness in both flanks. His urinations were scanty. On 12-19-40, he was admitted to Akron Children's hospital in the evening. On 12-20-40, the blood sulfapyridine level was 2.1 mg. percent. During the previous 36 hours of the patient's hospital admission, his urinary output had been only 180 cc. Fluids had been urged orally. A blood transfusion and intravenous saline had failed to relieve the anuria. All but 610 cc. had been vomited or refused. Urologic consultation was then asked. The patient was cystoscoped through an external urethrotomy incision. There was no flow of urine from either ureter. Ureteral catheters were passed with difficulty. Ten cc. of muddy syrupy urine from the right and six cc. from the left pelves were obtained. The catheters were left indwelling. They were aspirated and irrigated at frequent intervals. They were removed, 12-24-40. Post operatively fluids were forced orally and parenterally. The urinary output was unsatisfactory, but was adequate. On 12-21-40, retrograde pyelograms did not delineate the renal pelves on either side. Costo-vertebral tenderness remained until 12-25-40. Hematuria vanished, 12-27-40. The patient progressed uneventfully and was discharged, 12-29-40.

RECOGNITION

Renal complications of the sulfonamides were seldom immediate. Toxicity may appear in the presence of normal blood levels. Toxicity may appear in the face of acceptable drug dosage. Dourmashkin and Worton[4] report an instance in which only 6.5 Gm. of sulfapyridine produced complete anuria in an adult. Loewenberg et al[5] reported a case in which sulfathiazole concretions were found in the kidneys, ureters, and bladder at necropsy. There had been no urinary symptoms or signs. They suggested that there may be a latent period between the deposition of crystals and renal insufficiency. We have observed that this may happen. In one of our patients with sulfadiazine toxicity, age 71, urinary difficulties did not appear until two days after the discontinuance of the drug.

Anuria is usually preceded by certain warnings. Charting of the intake and output of fluids is of the utmost importance. Oliguria is the most important signal of impending anuria. A 24-hour urinary output of less than 1000 cc. is to be regarded with suspicion. The oliguria is practically always accompanied by a low specific gravity urine.

Hematuria may be due to glomerular irritation. Usually it represents laceration of the urinary epithelium by the bulky sulfonamide crystals. It has been stated that hematuria is not a sign of renal toxicity. Sulfonamide anurias that we have observed, and those reported in the literature are preceded by hematuria.

Costovertebral tenderness should never be ignored in a patient receiving the sulfonamides. It may announce ureteral block.

Sulfa crystals in the urinary sediment are a common finding. Should they appear in increasing numbers, be on the lookout for renal complications.

PREVENTIONS

The drug dosage should be the smallest amount that will accomplish the desired results. Ordinarily, this dose need not exceed 4 Gm. a day in adults.

The intake and output should be carefully charted and studied. Fluids should be forced to 4000 cc. per day. The urinary sediment should be examined daily. Be it remembered that a good urinary output is the best insurance against anuria.

We believe anuria to result from a mechanical obstruction due to the inadequate urinary output to wash out sulfa crystals present in the urine. The crystals are found normally in the urine. In a decreased urinary output, there is insufficient lavage of the ureters. It has been suggested that with a decreased urinary output, the urine is supersaturated with the sulfa crystals. We believe that concretions form as an accumulation of the sulfa crystals in the lower ends of the ureters and extend in thrombotic fashion. In our experience, the ureteral obstructions are always low in the ureters. There may or may not be secondary high obstructions.

In circumstances that demand dehydration, such as head injuries complicated by infection, be very vigilant. The drug dosage in such cases may have to be decreased.

At the present time, sulfonamides do not appear to be contraindicated in patients with a past history of uroliths not due to the sulfonamides.

TREATMENT

Treatment may be divided into medical and surgical. The division should not be termed conservative and radical. Ureteral catheterization is conservative treatment, indeed, when the ureters are well obstructed as in both of the cases presented.

Medical: At the first indication of oliguria, fluids should be forced orally or parenterally as the case requires. Four thousand cc. or more are indicated. Should the oliguria progress to less than 500 cc. during the next 24 hours, this form of treatment should be abandoned in favor of cystoscopy and ureteral catheterization. If costovertebral tenderness be the first warning, the treatment is the same. The patient should at all times excrete 1500 cc. of urine. Should hematuria or mounting numbers of the sulfa crystals appear in the urinary sediment, we believe that it is courting disaster to continue the drug administration. Occasionally, there are no ill effects. We have observed such cases. Nevertheless, the fact remains that in most instances, these findings do not long precede anuria.

Surgical: Should oliguria progress alarmingly, or anuria develop suddenly, cystoscopy and catheterization of the ureters is indicated immediately. If obstruction be present, indwelling ureteral catheters should be placed. Aspiration and irrigation of the pelves with warm water, normal saline, or sodium bicarbonate in sterile solutions should be done at frequent intervals. The catheters should be removed when the hematuria disappears and the retrograde pyelograms show a normal K.U.B. Intravenous pyelography may be attempted later as a final check. The continued forcing of fluids will expedite recovery.

SUMMARY

Two cases of sulfonamide anuria were presented. We wish to add these to the increasing total in the literature. Both of these were due to sulfapyridine, although Case 1 received a small amount of sulfathiazole. Both patients were cured by ureteral lavage and aspiration at frequent intervals. Concretions reform in the urinary tract if the catheters are withdrawn prematurely, as we discovered in Case 1, our first sulfonamide anuria. Repeated cystoscopies should be done with no hesitation if the anuria reappears. Forcing of fluids expedited recovery. No permanent renal damage was sustained. The treatment of anuria due to any of the sulfonamides is essentially the same. We have had no deaths from sulfonamide anuria. Our recommendations as to recognition, treatment, and prevention were advanced.

We believe that concretions form in the urinary tract on a mechanical basis. These crystals are large and bulky. Once in the ureters they are difficult to dislodge. In attempting to dislodge them in Case 1, we broke off a catheter tip in the lower end of the ureter. To break a catheter tip is quite difficult. We believe that a small urinary output does not effectively cleanse the lower ends of the ureters of crystals. The concretions then form in thrombotic like fashion. We believe that sulfonamide anuria is a preventable complication when the mechanics of sulfonamide concretion formation are understood.

CONCLUSION

1. Sulfonamide anuria is a preventable complication, if an adequate urinary output be constant.

2. When sulfonamide anuria occurs, ureteral catheterization should not be delayed.

3. Anuria appears in the face of acceptable drug dosage and blood levels.

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Usefulness of Laughter

Laughter is dependent upon a reasoning power and sense of deduction. It is physiological, and it is natural.

Laughter may thus be said to be an integral part of the physiological processes of the body and mind, and, as such, should be practiced more and more. Laughter and pleasant thinking should then be considered a valuable adjunct to all-round healthy living as well as a natural easy means of total physiological exercise easily within the reach of all.

Finally, laughter begets optimism, self confidence, and relegates fear and pessimism to the background, thus giving one a great advantage in the battle of life. It is a well-known fact that the self confident, happy, optimistic contestant, whether it is in athletics, mental conflict, or any other phase of life, has a distinct advantage both physical and mental over an opponent who is not as fortunate from those standpoints.

It may be that in the future we will realize more and more the importance of a hearty laugh and its attendant chain of supporting by-products. We may eventually evaluate the true balance of spare time, call it what you will—vacation, deviation from the hum-drum path of daily work, or just plain loafing—and then recognize the fact that accomplishment will be measured by such standards rather than by long hours of drudgery amid tobacco ashes, empty coffee pots, and, in some cases, empty flasks.—E. Forrest Boyd, M.D., Los Angeles, Calif.; Southwestern Med., Vol. XXVI, No. 7, July, 1942.

Pulmonic Interstitial Emphysema and Anterior Mediastinal Emphysema

GEORGE X. SCHWEMLEIN, M.D.

INTERSTITIAL emphysema was frequently observed among the casualties of World War I. In civilian practice the condition is somewhat of a rarity, and when encountered may produce perplexity unless the classical signs and symptoms are kept in mind when one is examining a case which is in the realm of cardiac accidents.

The condition is caused by an increase in the intrapulmonary pressure with a resultant rupture of multiple areas in the alveoli and bronchioles of the lung structure. It often follows trauma to the chest and may occur after blows to this region without fracture of the ribs or laceration of the lung tissue. The puncture of a needle in the induction of a therapeutic pneumothorax is often a common cause. Interstitial pulmonary and mediastinal emphysema occur less often after a distention of the lungs produced by violent muscular effort when the glottis is closed. It has been observed in newborn infants after attempts at resuscitation, in children after severe paroxysms of coughing or crying, in pneumonia and bronchial asthma, after straining at stool, during childbirth and after heavy lifting.

Fisher and Macklin[1] reported a case of pulmonic interstitial emphysema and mediastinal emphysema in a 22 months old white child who aspirated peanut fragments and consequently overinflated the left lung. Wolff[2] observed a case of spontaneous interstitial emphysema of the lungs in a 27 year old laborer which developed while he was rolling a wheel-barrow. Smith and Bowser[3] reported two cases of pneumomediastinum occurring in premature infants of seven and eight months gestation following spontaneous delivery, both recovering, while Fisher[4] described a fatal case in an infant five hours after delivery. The child overinflated the right lung because of atelectasis of the left lung. The air escaped into the mediastinum and compressed the pulmonary vessels to the point of circulatory failure.

Morey and Sosman[5] reported a case of spontaneous interstitial emphysema in a medical student who was working in a laboratory with a Haldane apparatus. This patient had a subsequent episode several days after the first one with milder signs and symptoms. Wolferth and Wood[6] described the condition in a boy who had engaged in a wrestling match one week prior to the onset of his illness. McGuire and Bean[7] observed the condition in a 17 year old girl, the onset having occurred while she was standing, dribbling a basketball in a gymnasium. They also reported a second case which occurred in a 39 year old woman 15 minutes after delivery.

The Author

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Louis Hamman[8] in 1937 first reported eight cases of *spontaneous* interstitial emphysema and it is appropriate that this important clinical entity should be termed "Hamman's disease". His cases all involved a minimal or even moderate physical exertion at the onset, such as shaving, sitting in a chair, getting out of a car, walking on a street on a cold day, while in bed, and sitting in a train car.

Pulmonary interstitial emphysema is caused by rupture of the alveoli and bronchioles and the escape of air into the interstitial tissue of the lungs. The air, by dissection of the interstitial tissues, reaches the mediastinum along the connective tissue bands which surround the bronchi and blood vessels. It is possible that it may reach the mediastinum by burrowing beneath the visceral pleura or between parietal pleura and the chest well. However, it is likely that these paths are followed only rarely and under unusual circumstances.

In animals it is very easy to produce interstitial emphysema by raising the intrapulmonary pressure, for instance, by inflating the lungs by means of a pump. Under these circumstances air reaches the mediastinum and soon appears in the subcutaneous tissues of the neck, concomitantly pneumothorax is often produced. Occasionally if the lungs are forcibly distended, air embolism occurs. Fisher and Macklin[1] demonstrated this entire procedure by special technique and autopsy material.

Clinically the condition presents the occurrence of a sudden sensation of pain over the precordium, but there is an absence of the usual constitutional symptoms and myocardial weakness which are characteristic of coronary occlusion. As Hamman[8] describes it there is a peculiar crunching, crackling, bubbling sound over the heart with each contraction. The term "pericardial knock" was applied to a sharp rapping

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Sumitted May 7, 1942.

sound sometimes heard over the precordium in cases of gunshot wounds of the chest during World War I. Rees and Hughes[9] first drew attention to the phenomenon by describing the sound as a sharp, hollow knock which is always systolic in time and varies with respiration, being loudest during inspiration; it is always associated with a wound of the left side of the chest. The area of cardiac dullness may be diminished in extent or replaced by a tympanitic percussion note. Roentgenograms will often demonstrate the presence of air in the mediastinum. The detection of crepitation in the subcutaneous tissues of the neck makes the diagnosis obvious.

CASE REPORT

R. B., an eighteen year old white male, was admitted to the surgical service of the hospital on February 2, 1942. He complained of numbness and tingling in the right forearm and hand, and examination revealed a true scalenus anticus syndrome. Remainder of physical examination revealed a well nourished and very well developed white male in excellent health with no abnormalities. The following day he was taken to the operating room and at 11:50 A.M. by administration of open cone ether anesthesia a right anterior scalenectomy was performed. He was returned to the room at 1:10 P.M. and had almost entirely reacted by 2:15 P.M. He became quite restless and cried excitedly in an irrational manner. He recognized his parents and said that there was no pain in the area of operation, but in the lower chest and upper abdomen the pain was very severe. Examination of the abdomen revealed generalized tenderness and hyperaesthesia. There was extreme rigidity of the entire abdomen and all peristaltic sounds were absent. The pulse rate was 116, and the impulse soft and compressible. The blood pressure was 116 systolic and 75 diastolic. The respiratory rate was 22 and the temperature 99°. Examination of the surgical area revealed no abnormality. There was no crepitation in the area of the supraclavicular and suprasternal regions.

Inspection of the chest revealed only slight limitation of movement over the lower half bilaterally. There was marked tympanites over the entire sternum and left parasternal area and the cardiac dullness was practically absent. There were no palpable changes. The heart sounds were distant, but there was a marked crunching, crackling, rubbing bruit heard best over the pulmonic area on forced expiration, during systole. It was intensified when the patient bent slightly forward and to the left and was transmitted best to the apex of the heart. The immediate impression was that the condition was one of an epicardial involvment either an inflammatory process or an infarction. The white blood count was 18,900, with a differential of 91 per cent polys and 9 per cent large lymphocytes.

The patient was given morphine sulfate gr. ¼ and atropine sulfate gr. 1/150, and roentgenograms and an electrocardiogram were taken the next morning.

Stereoscopic and lateral roentgenograms showed a slight increase in the amount of air in the anterior mediastinal shadow on the left side and in the anterior portion of the lower half of the mediastinum.

The electrocardiogram showed the rate to be 80, sinus arrhythmia, normal intervals, normal S-T segments, R_4 small $T_{1\,3\,4}$ small, and the P waves small.

The next day, February 4, the abdomen was not tender and the rigidity had entirely subsided. The pericardial clicking, crunching, crackling sounds were still present. In addition there were many sibilant rhonchi and fine rales anteriorly at the left parasternal line in the fourth and fifth interspace. A careful examination was made again for subcutaneous emphysema, but none was found. Posterior chest examination was negative. One of the attending staff physicians stated that the bruit was similar to "the sound heard when one walked in dry crisp snow on a quiet street".

The white blood count showed 9,000 with a differential of 76 polys, 3 eosinophils, and 21 small lymphocytes. The sputum examination was negative for pneumococci and acid fast organisms. The remainder of the hospital course was uneventful. The heart sounds became more audible and the bruit began to disappear. The tympanites over the sternum remained. Stereoscopic and lateral roentgenograms on February 7, four days after operation, revealed only a small amount of air along the anterior portion of the lower half of the mediastinum, definitely less than was shown on previous examination. Electrocardiogram showed all T waves to be considerably more toward the normal. The patient sat up with no discomfort or complaints and was dismissed on February 8.

He was next seen in the Out Patient Department on March 7, 32 days after the operation. The patient had been working during the past two weeks and had had no complaints referable to arm or chest. Stereoscopic and lateral roentgenograms showed no evidence of pathology in the lung fields. The air previously shown in the lower anterior mediastinum had entirely disappeared. Electrocardiogram was normal except as follows: mild sinus arrhythmia, P_3 negative, R_2 and R_4 notched. The R_4 was of normal amplitude. T_4 was of normal amplitude. T_4 was positive.

Physical examination revealed no subcutaneous emphysema, the surgical wound was well healed. Examination of the chest revealed no abnormal pathological findings.

DISCUSSION

It is possible in these cases that the air upon reaching the anterior mediastinum finds its way between the spaces of the areolar tissues and when impinged upon by the cardiac contractions causes crepitation. In this case there was no evidence of a serious constitutional disturbance, such as profound shock, anxiety, or cyanosis. The patient complained of pain only in the lower chest and the abdomen. Other than the peculiar heart sounds, the precordial tympany was the outstanding sign. We do not claim to place this case in the category of "Hamman's disease" because there is considerable doubt as to its spontaneity, but whether the condition originated spontaneously or as a result of a sudden increase of intrapulmonary pressure during the excitement stage of anesthesia, the symptoms and clinical findings are the same. One might also be concerned over the possibility of the air entering at the site of the operative procedure. This is highly improbable because the surgery was performed on the right side and the air seen in the mediastinum was on the left. The surgeon stated that at no time during the operation did he hear a hissing sound or observe any bubbling of air in the incision.

However, Barrie[10] reports four proved cases of death from interstitial emphysema with bilateral pneumothorax, three following partial thyroidectomy and one after tracheotomy. He concluded that the air entered the tissues from the wound rather than from the lung and never from a damaged pleural cupola, while air entered the pleural cavities from an emphysematous mediastinum.

It is important to diagnose this condition not because of its gravity, but because of the seriousness of the conditions it may simulate; that is, coronary thrombosis, pericarditis, pneumonia, pulmonary infarction, pulmonary embolus, and ruptured aneurysm. The condition in adults is usually benign and after diagnosis the patient may be reassured of his ultimate complete recovery.

Treatment consists of the usual supportive measures and bed rest. Some clinicians advise pneumothorax to prevent further leakage of air, and others advise liberation of air from the mediastinum.

SUMMARY

1) A case of interstitial pulmonary and mediastinal emphysema is described.

2) The author makes no claim to the attachment of Hamman's name to this particular case, because of the absence of spontaneity from the picture. However, regardless of whether the condition occurred spontaneously or because of an increase in intrapulmonary pressure following exertion, the clinical entity is the same.

3) There is some discussion as to whether the air entered the interstitial tissue of the lung and dissected along the intestinal bands and bronchi, thence to the anterior mediastinum from a ruptured alveolus; or directly from the area of operative procedure. The former entrance seems the most logical in view of the excitement and violent exertion during anesthesia.

4) Diagnostic signs and symptoms are: the onset of sudden pain in the chest and abdomen with a lack of the usual constitutional symptoms of shock and cyanosis seen in cardiac or pulmonary accidents. There is a precordial tympanites with diminution of cardiac dullness and the presence of peculiar bubbling, crunching, crackling sounds over the precordium, especially in systole on expiration. Anterior-posterior and lateral roentgenograms will establish the diagnosis.

5) This case is unusually interesting because the signs and symptoms simulate an acute abdominal catastrophe.

6) This entity is in itself benign; the importance lies in its differentiation from coronary thrombosis, pericarditis, pneumonia, pulmonary infarction, pulmonary embolus and rupture aneurysm.

7) In military medicine at present and in the future we may again expect to see an increase in the occurrence of the condition with its peculiar cardiac signs.

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Coronary Sclerosis

Coronary sclerosis is almost exclusively atherosclerosis. The frequency of coronary disease is related to the unusual stresses to which the vessels are subjected. They arise directly from the aorta in a region of maximal stress as the aortic cusps close. Moreover, circulation is shut off from their muscular branches by compression as the ventricles contract in systole. At the same time the main vessels and their subepicardial branches are not compressed, but are filled with blood under systolic pressure, without being able to empty themselves. The main coronary circulation is during diastole. Because of stresses normal coronary arteries develop characteristic thickening of the intima to produce a "buffer" layer.

In middle age more collagen is formed and scaring is typical of this period. Narrowing of the coronary lumen (with coronary insufficiency), and chronic vascular myocarditis are frequently found at postmortem examination. Spasm may result in sudden death or in infarction without anatomic occlusion of vessels, particularly in hypertensive heart disease. Thrombosis is less common than in youth. Calcification becomes more common.—Timothy Leary, M.D., Boston, Mass.: R.I. Med. Jour., Vol. XXV, No. 8, August, 1942.

Acute Inversion of the Puerperal Uterus

RICHARD PATTON, M.D. AND CHARLES W. PAVEY, M.D.

IT is generally believed that such mechanical factors as excessive abdominal pressure and cord traction are major causative factors in acute inversion, although it is admitted that pathological contraction of the uterine musculature may rarely cause a spontaneous inversion. In our three cases it is interesting to note that in the first, the start of the inversion was noted before delivery of the placenta, in the second, the inversion did not occur until three hours postpartum, and in all cases there was premature rupture of the membranes. This would seem to lend weight to the belief that abnormal contraction of the uterine muscle is a major factor.

The diagnosis of acute inversion can be made easily and with certainty by a bimanual pelvic examination. It should be suspected whenever a dimple is felt in the fundus through the abdominal wall, when there is severe postpartum bleeding, or when the patient shows signs of surgical shock. A pedunculated submucous fibroid or prolapsus uteri are about the only differential considerations.

There are two essentials in the treatment of acute inversion. First, recognize the inversion and combat shock immediately with intravenous plasma or whole blood. Second, replace the inversion as soon as the supportive therapy has taken effect. The severe surgical shock accompanying acute inversion must be attacked rapidly and vigorously. Intravenous plasma and whole blood are the most important weapons. Plasma should always be available for immediate use. Intravenous fluids and glucose can only be regarded as temporary measures. Heat, stimulants, and oxygen are always utilized but are considered secondary to transfusion. The surgical shock accompanying acute inversion must not be confused with the shock from blood loss alone. It is far out of proportion to the hemorrhage, and supportive therapy must be begun early or the results will be tragic. Most hospitals now have plasma or blood banks, and dried plasma is commercially available. The liberal use of plasma should materially lower the subsequent mortality rate of acute inversion, for the shock can be brought quickly under control and manual replacement can be done with the patient in good condition.

Manual replacement is not difficult if undertaken at once. If there has already been some contraction and the musculature is hard it can be relaxed by one cubic centimeter of a 1:1,000 solution of epinephrin, and 1/100 grs. of atropine given intramuscularly into the deltoid. This may be repeated in ten minutes if necessary. Under light ether anesthesia, with oxygen being pushed because of the inevitable shock, the finger tips of one hand are inserted into the uppermost part of the uterine cavity. The abdominal hand steadies the uterus at the rim of the inversion, and pressure is made upward with the intrauterine hand, squeezing the inverted fundus, and replacing first that part of the uterine wall at the rim of the inversion, i. e., that portion which inverted last. The uterine cavity should be packed for 12 to 24 hours after replacement. Ergotamine tartrate or other similar effective ecbolic is given intramuscularly or intravenously after replacement, and again after removal of the packing.

The three case reports given below illustrate the points we have made in regard to treatment. Case number one received therapy as outlined above; she recovered promptly and her course was uneventful.

Case No. 1. Mrs. E. S., a 17-year-old white primagravida, entered the hospital October 9, 1941, at 5 A. M. with regular labor pains and no dilatation. The prenatal period had been uneventful. Her membranes had ruptured at 1:30 A. M., and labor pains began within an hour. She was delivered by elective low forceps and median episiotomy at 3:28 P. M. after a 12-hour normal labor. Because of a dimple felt in the fundus during massage, Crede expulsion was carefully avoided. The placenta separated and was lifted from the vagina at 4:04 P. M. as it was not expelled spontaneously. Vaginal examination revealed nothing abnormal at this time, but the fundus remained umbilicated, the patient had persistent mild vaginal bleeding, and began to show signs of shock. Re-examination at 4:15 showed that the fundus had progressed downward and lay in the vagina. The staff physician was called, shock was combatted with stimulants and the usual therapy, and preparation for a plasma transfusion was made. At 4:25 the pa-

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tient was in severe shock with chalk white face, imperceptible radial pulse, and blood pressure 50/0, though she had not lost over 600 cc. of blood. Undiluted blood plasma was started and by 4:45 the pulse was better and the blood pressure 80/60. Under light ether anesthesia the fundus was reinserted by the technique described above. The replacement was accomplished without difficulty, and the cavity was packed with gauze. The patient was given an additional 500 cc. of plasma and also 1000 cc. of 10 per cent glucose in normal saline. The blood pressure at 5:30 P. M. was 90/60, and rose to 100/65 one hour later, with a pulse of 85 and of good volume. The uterine packing was removed in 24 hours and the further course was uneventful except for mild secondary anemia.

In the second case, recognition and replacement were somewhat, though not markedly, delayed. Blood was not available at that time and two hours elapsed before donors could be obtained and cross-matched. Though strenuous treatment was instituted at this time, the shock was never brought well under control and the patient expired within 12 hours. The myocardial infarct found at postmortem was probably of considerable importance as a cause of death, but it may have been the result of severe circulatory failure.

Case No. 2. Mrs. R. B., a 24-year-old white primagravida entered the hospital December 26, 1939, at 8:30 A. M. with regular labor pains and two fingers dilation. The prenatal period had been uneventful. Her membranes had ruptured at 7:10 A. M. and labor pains began at once. She was delivered spontaneously of a living male at 12:29 P. M. after a five-hour labor. At 12:58 one cc. of obstetrical pituitrin was given, and the placenta was expressed at 1:00 P. M. by the Crede maneuver. After examination of the placenta it was noted that a small fragment might have remained in the uterus. The fundus was controlled for one hour, there was no hemorrhage, and she was returned to her room in good condition. At 3:00 P. M. her condition was noted as good. At 3:45 P. M. she had a sudden gush of blood from the vagina and rapidly went into shock. By 4:30 her pulse and blood pressure were imperceptible and intravenous gum acacia was started as an emergency procedure. At 5:30 a blood transfusion was begun. Vaginal examination revealed a partial inversion of the uterus which was replaced and the uterine cavity was packed. A cervical tear was discovered and sutured. By 9:30 P. M. the patient had received 1500 cc. of whole blood. She was in much better condition. The pulse was full, rate 90. Blood pressure was 88/60 and she had no vaginal bleeding. At 3:30 A. M., December 27, 1939, signs of shock became more pronounced. The pulse was fast and weak. The blood pressure fell to 66/50. The skin became cold and clammy and the extremities cyanotic. The usual shock therapy was instituted. At 6:30 A.M. the patient was comatose with imperceptible pulse and blood pressure, she had no further vaginal hemorrhage, but in spite of stimulants and an intravenous of 10 per cent glucose in saline, there was no improvement and at 10:50 A. M. she expired. A postmortem was obtained. There was incomplete involution of the uterus but no concealed hemorrhage. There was coronary sclerosis and a recent myocardial infarct in the interventricular septum.

In the third case there was definite delay in replacement of the inversion. The shock was treated by fluids and glucose and all other measures but again neither plasma nor blood was immediately available, and the shock could not be controlled. The patient died a few hours postpartum, though the inversion was replaced and the hemorrhage stopped.

Case No. 3. Mrs. M. G., a 26-year-old white female para ii, gravida iii entered a Columbus hospital at 1:30 P. M., August 23, 1941, two fingers dilated, and having strong uterine contractions every two to three minutes. The prenatal period had been uneventful. Her membranes had ruptured at twelve noon, and labor pains had started immediately. She was delivered by elective low forceps of a normal living female child at 3:42 P. M. after a normal three and one-half hour labor. The placenta was expressed with some difficulty by the Crede maneuver at 3:54 P. M. Following the expression there was persistent, profuse vaginal bleeding, the blood pressure and pulse fell steadily, and the patient went into profound shock. By 4:40 P. M. the blood pressure and pulse could not be obtained. The usual shock therapy was begun, an intravenous of 1000 cc. of 5 per cent glucose in normal saline was given, gum acacia was later added, and a consultant (C.W.P.) was called. Upon arrival at 5:00 P. M. a diagnosis of inversion of the uterus was made, and manual replacement accomplished at 5:40 P. M. The hemorrhage, which had been profuse, stopped. The patient was given stimulants, oxygen, and at 6:30 P. M. a transfusion of 500 cc. of whole blood. The patient showed no improvement. Blood pressure and pulse were not obtained even during the transfusion, and the patient expired at 7:20 P. M.

SUMMARY

1. There have been two cases of acute puerperal inversion of the uterus, with one death, in the last 19,000 deliveries at the Ohio State University obstetrical clinic.

2. In the treatment of this entity instantly available plasma or blood for treatment of shock, and immediate replacement of the inversion should materially benefit the prognosis.

3. Three cases of actue inversion have been presented.

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The Trace Mineral Elements in Nutrition

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In the past Medical Science has conferred upon those peoples who have availed themselves of the newer knowledge of disease, the prevention of infections through vaccination and immunization, seemingly miraculous cures through new and powerful chemicals, and additional years through the better feeding and care of babies and infants. In the future, Medical Science promises to those individuals who will take advantage of the new knowledge of nutrition, a greater stature, a better physique, increased resistance to infections, comparative freedom from disease, the insertion of ten additional years into the active mid-span of their lives, an increased vigor and vitality at all age levels, the postponement of the usual signs of senility until the very end, better morale, a happier disposition and a higher level cultural attainment.

For nearly 150 years now, we here in Ohio have robbed our soil taking its riches and returning little. Farming should be instead a stewardship where the mineral elements are scrupulously returned to the soil from which they have been borrowed. Since the opening of our canal system, we in Ohio have shipped outside our state boundaries our lime, our phosphorus, our magnesium and the host of trace elements about which we were totally ignorant. For these we got cash with which to buy more efficient tools with which to rob our lands still more, or to buy fancy clothes, shiny cars, and other gadgets with which to decorate ourselves and our homes. We city folks lived off the man on the land and got most of these gadgets while our country cousin on the farm struggled to get enough to pay his taxes, his interest, and maybe something on the mortgage. Thus the hard-pressed American farmer has been compelled to get cash regardless of its effect on society. So we have the wheat farmers and their dust bowls; the corn belt farmers who have relinquished their lands to the money lenders; the cotton farmers who have ruined their lives and their country; and, right here in Ohio we are using our farms as though they were mines from which riches might be safely taken until they were exhausted instead of the part of a nicely balanced biological system which they are. In 1934 only one part in sixty of the total amount of phosphorus, potassium, and nitrogen lost through soil erosion was returned by fertilizer. To get the total amount of these elements lost in that year to this you must add the amount removed by the crop or the pastured animal. (Table I.)

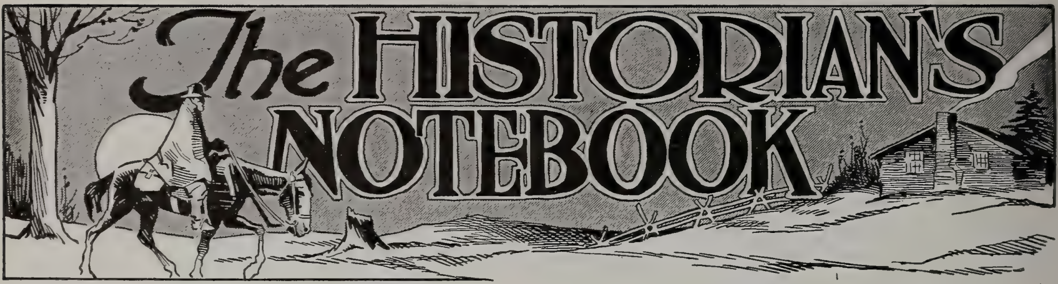
It is to be remembered that our virgin soil contained approximately 2500 pounds of phosphorus. The table below shows how rapidly we use up our heritage. If the crops are fed to animals instead of sold to cash most of the potash is returned to the soil, but the phosphorus goes to market in the bones of the steer and is lost forever to the land.

TABLE I

Plant	Yield per Acre	Phosphoric Acid	Potash Required
Apples	400 Bu.	10 pounds	35 pounds
Peaches	500 Bu.	25 "	100 "
Grapes	4 Tons	10 "	35 "
Corn	60 Bu.	35 "	70 "
Wheat	30 Bu.	20 "	30 "
Cabbage	15 Tons	25 "	100 "
Irish Potatoes	300 Bu.	35 "	170 "
Tomatoes	375 Bu.	35 "	175 "
Sweet Potatoes	300 Bu.	20 "	115 "
Celery	350 Crates	65 "	235 "
Alfalfa	3 Tons	35 "	135 "
Soy Beans	25 Bu.	40 "	60 "
Lespedeza	3 Tons	30 "	70 "
Timothy	1.15 Tons	15 "	40 "

The nutritional importance of calcium, phosphorus, magnesium, sodium, potassium, chlorine, iron and iodine have long been recognized. Until recently, however, little importance has been attached to the presence in plant and animal tissues of copper, manganese, zinc, cobalt, nickel, bromine, silicon, strontium, vanadium, aluminum, flourine, or selenium. In fact, their presence was thought to be incidental to the ingestion of foods containing them. They were really looked upon as accidental contaminents from the soil. Today we are beginning to see that these so-called "trace elements" may have an important connection with the nutritional need of the body tissue of both man and beast. Another aspect of this problem of the relationship of the trace elements to health has to do with the possibility of intoxication due to an excess of the element under consideration. Thus not only does a deficiency of a certain element in the soil reflect itself with characteristic symptoms both in plants and animals but often an excess of this same element in the soil will poison the plants growing in it and in some instances the animals and humans who feed upon that plant.

This is the first of a series of editorial summaries on the importance of the so-called trace mineral elements in Conservation, Nutrition, and Health.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Observations on the Minor Epidemics Of Marietta, in the Year 1824*

DR. SAMUEL P. HILDRETH

THE following observations formed the basis of a discourse read before the 12th Medical Society, at Marietta, in 1824. The subject was a diffusive one, embracing a history of the diseases that followed in the train of the great Epidemic, that visited the borders of the Ohio, in the years 1822 and 1823.

Since the early days of the "father of medicine," the intelligent and observing physician, could not but notice the host of minor diseases which preceded and followed every epidemic; although in full activity, other diseases were absorbed in it, or obliged to put on its formed appearance. The writings of Sydenham, who is justly entitled to the honour he has acquired of being styled the English Hippocrates, abound in observations of this kind; and one of the great excellencies of his works consists, in the accuracy and care with which he has described the minor disorders that accompanied the great epidemics of those days; which, like the light troops of an invading army, formed the advanced and rear guards of the same. And as nearly related to the same subject, we find his observations on diseases, connected with remarks on the vicissitudes of the seasons, and the changes of the weather, which many times, like the "groundswell" of the ocean, give notice of the coming storm; warning the careful pilot of the approaching danger, and to be prepared for the trial. And although we now live in a day when "the lights of science" are scattering a thousand rays, and illuminating the darkest subjects, it well becomes us not to neglect the examples of those great masters, who taught that experience is better than speculation, and that in medicine as in law, facts are the only things to be relied upon. In history, the most interesting portions, are those which give the particular details of an individual's actions and life; so in the practice of medicine if we could have the details of a season, they would be more interesting and useful than the treatment of an isolated case. There are few physicians who, in the course of several years practice, have not discovered some new remedy, or some peculiar manner of treating diseases, which if known, would be useful to others. I hope the subject may be considered and receive the attention it merits.

The winter of 1823 and '24, was comparatively healthy; the inhabitants, although feeble from former diseases, were generally well, with the exception of scattering cases of intermittents. Early in the month of March, the measles made their appearance amongst us, and in this town were confined to the east side of the Muskingum river. Most of the cases were very severe; being attended with violent inflammatory fever and great irritation of the lungs. There was no difficulty in procuring a free eruption, if the patient was not kept too warm and drenched with stimulating hot teas and drinks. For the purpose of promoting the eruption of measles, cool air, cool drinks, and purging with neutral salts, were found to be very effectual. If the fever was very high, bleeding was practiced, with the view of facilitating the eruption by reducing the arterial action, and relieving the engorgement of the lungs, which in some instances was so great as to threaten suffocation. In young children the symptoms resembled croup, and required the same treatment to relieve their breathing. In others it affected the head, with all the symptoms of hydrocephalus; and in one instance that of a child of ten months, ended in convulsions the tenth day of the disease, similar to those in fatal terminations of inflammation of the brain. In adults, the lungs suffered most; going through as tedious a course of expectoration as in cases of peripneumonia. By the middle of May the measles had disappeared, and but few cases came within my knowledge after that time.

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*The Western Medical and Physical Journal, Vol. 1, pp 497-504, 1827-

This essay is interesting historically as it describes the typical practice in Ohio a little more than a century ago. The stress laid on the description of weather conditions was due to the influence of Dr. Daniel Drake, who was intensely interested in geographic medicine.—D.A.T.

The month of April, 1824, was marked by great vicissitudes in the weather; the thermometer, having in one or two instances undergone a change of forty-four degrees in the space of eighteen hours. These sudden changes in the temperature of the atmosphere, had considerable effect on the human frame, producing several cases of cynanche tonsillaris; and in persons disposed to intermittents, it was certain to bring on an attack of this disease. Nearly all the cases of intermittents, were of the tertian type. They were generally removed in a few days by the following course. When the pulse was full or hard, bleeding was premised; and if the blood was sizy or inflammatory, repeated two or three times. The stomach and bowels were evacuated, by calomel at bed time, followed in the morning with a purging draught of sol. Eps. senna and manna. This kind of purge I have found more effectual in discharging bilious sordes and tough mucous than any other. Its operation seems to be more energetic on the stomach and duodenum, than on the large intestines; and it evacuates, and stimulates into a more healthy action that part of the viscera, which at first view would seem to be only under the controul of emetic medicines. After free evacuations from these medicines, the complaint in many instances gave way, without the assistance of other remedies. But if it still continued, bark and snakeroot were used, or opium and camphor, administered in such doses as to destroy the concatenation of symptoms, and rouse the system into action, before the debility and depression took place, which is the certain precoursor of the cold stage. A regular and continued use of some tonic medicine, was necessary to prevent a recurrence of the disease. In obstinate and difficult cases of this intermittent, the most certain and effectual remedy has been the following:

℞ Ant Tart ℈. L Laud qut c Ess Menthae piper XLqut. Aquac ferrid ℥wt Misce.

Of this preparation, one teaspoonful, or sufficient to create nausea, was given every two hours; commencing ten or twelve hours before the cold stage. In the hot stage it might be omitted or continued, as seemed necessary. It was usually omitted for eight or ten hours in the intermission, that the patient might have time to eat and digest his food. This medicine, when regularly administered, was certain to break the most inveterate ague, in from three to six days. It never failed in a single instance. Its operation seems to be stimulating and tonic. It overcomes that gastric irritation, and debility, so common in all obstinate agues; opens the pores of the skin, and the appetite and strength are improved under its use.

A number of cases of enlargement of the spleen came under my observation, in the course of the spring, mostly in March and April. As the weather became more steadily warm, the complaint was less troublesome. The remedies most effectual were purges of calomel, in thirty grain doses, followed by Super Tartas potassae frequently repeated; with a large blister over the spleen. This course usually removed the enlargements, and carried off any symptoms of dropsy that might be present. I know of no instance where suppuration took place. The strength and tone of the system were much benefitted by a free use of chalybeates. It was remarked that nearly all the cases of enlarged spleen were amongst females; whether this was owing to the female system being more incident to the complaint, or purely accidental, I am not able to determine; but such was the fact.

Several cases of Cynanche Tonsillaris came under my care in March and April. The mode of treatment was to bleed freely, as early as possible; cleanse the stomach and bowels with a purge of calomel, followed by Oleum Ricini; apply volatile liniment over the affected parts, and use a strong gargle of mustard seed tea; the stronger it is the more suddenly its beneficial effects are perceived. Its operation is that of a powerful stimulant and sialogogue; exciting the salivary glands into action, and by the free discharge of saliva, the tonsils are relieved of their obstruction and swelling. Since I have been in the practice of this course, the most beneficial and flattering results have followed; and where applied early in the complaint, has not been known to fail in effecting a cure, without that tedious process of suppuration, which many times attends the disease. After the measles appeared, all attacks of acute disease were attended with more or less affection of the lungs: whether that constitution of the atmosphere which is favorable to the production of measles, has an influence on the lungs, I know not; but am induced to think that when any disease appears as an epidemic, it acquires more or less power in assimilating other diseases to its own likeness, giving a decided cast to the features of every complaint that may appear within reach of its influence. This it seems was the observation of Sydenham, that critical observer of the laws of nature in the government of diseases. And this I know to have been the fact in the great epidemic of 1822 and '23; every disease that appeared was compelled to acknowledge its reign, and put on the intermitting type; whether rheumatism or pneumonia, all had to submit to its sway; and even one case of long continued and inveterate epilepsy was conquered by its power, and for three months lay in quiet submission under the potent arm of a tertian ague; when previous to this the epileptic attacks had appeared every ten or twelve days.

The month of May was unusually wet and very cool; frost appearing as late as the 26th of the month. Vegetation was at least ten days later than usual. This cool weather was not unfavorable to health; and by the last of May most of the people were free of their vernal tertians. In this month I attended a case of abortion, in the third month. It was caused by over exertion in drawing water from a well. The flooding was very excessive, and continued after the secundines were thrown off. Most of the old remedies were tried, without much benefit. There being considerable heat in the hypogastric region, a large blister was applied, with good effect. But the greatest relief was obtained from drinking freely of an infusion of the bark of the "Prunus Virginiana," in cold water; it checked the flooding directly, and relieved all the distressing symptoms. I have repeatedly used it in similar cases, and with the like beneficial result. The weather, in the month of June, was pleasant and agreeable. Winds mostly from the north, until past the 20th of the month. The last week in June was very warm, the thermometer rising above 90 degree, in the shade, for several successive days. Very few cases of Cholera made their appearance, and these could generally be traced to a free use of cherries or currants. No case of continued fever fell under my observation in the course of this month; nor did I hear of any in the country, that could be called by any other name than intermittent. Tertians still continued to show themselves occasionally amongst those who had been afflicted with this tedious malady in the spring months, but the health of the inhabitants was generally good. A few cases of Chicken Pox occurred amongst the children, and at the close of the month a few cases of Measles. One of these cases was that of a female in the seventh month of pregnancy, and was very severe. The violence of the cough and fever, notwithstanding two or three free bleedings and a full antiphlogistic course, brought on premature labor. The child appeared to be laboring under the same malady, having a cough and difficult breathing; it lived about 12 hours. The woman recovered from the measles more rapidly, than she otherwise would have done, had miscarriage not taken place.

The forepart of July, after the 9th, was very wet, and weather warm. About this time several cases of fever made their appearance in the country, and two or three cases in the town. Bowel complaints, became more frequent amongst children; for which in addition to my favorite remedy of calomel in small doses, frequently repeated, an infusion of the "Bene" leaf, in cold water, was found to be very useful. It imparts a fine and pure mucilage to the water, without altering the color or taste. Of this beverage, children drink as freely as of clear water—its good effects are apparent in a few hours, by a general abatement of the most distressing symptoms. It is a favorite adjunct with me, as children take it without force, and with apparent satisfaction. In the month of August the heat was moderate, and weather generally fair. But little rain fell in the course of the month. Bilious fevers were more common in this month; and several cases were of malignant type. These cases, as in former years, were under the control of medicine, if advice was called early in the disease, and the patient put under a mercurial course. The fever becoming mild and tractable in nearly every instance, as soon as the system was affected by the mercury.

Several cases of Typhus mitior, also appeared in this month. They were managed successfully, after moderate evacuations from the stomach and bowels, with affusions of cold water and a liberal use of muriatic acid, to the extent of two drachms a day, in the syrup of loaf sugar; with a prudent use of wine and nourishment on the decline of the fever. In the course of the month a number of cases of scarlatina anginosa, came under my care; the first I had seen during a residence of eighteen years in Ohio. Most of the cases were mild; being attended with moderate fever, swelling of the parotid glands and tonsils, a thickly coated tongue and no eruption; running its course in a week. A few others were attended with the scarlet eruption, violent heat and itching of the skin, and very sore throat; the fever continuing for twelve or fourteen days, and leaving a swelling of the feet and legs, with desquamation of the fingers and toes, the tumefaction of the glands returning on exposure to cold, for several weeks. None of the cases were fatal; the disease being manageable by pursuing the antipholgistic course, with a free use of diluted vitriolic acid, as a drink and gargle. Where there was much swelling of the parotids, blisters were applied with apparent benefit; and to allay the excessive heat and itching in the skin, which attends this disease, cold water was applied often, with a sponge or soft linen rag. It was confined chiefly to children under ten years of age; a few cases occurred amongst adults. In these the disease made no appearance on the skin; but was confined to the glands and throat, and attended with considerable fever. The scarlatina anginosa had not been in this part of the State since the year 1795 or '96; at which time it was prevalent in Marietta and Bellepre, being of a malignant type and very fatal to the children of the early settlers; some families losing as many as six or seven, and all suffering more or less.

The fore part of September was very cool and considerably wet. The thermometer on the 9th falling as low as 52 degrees, and continued low for a number of days. This cool weather had but little apparent effect on the health of the inhabitants. Intermittents were more common, but a few cases of fever occurred, less than in the last month. Some cases of dysentery appeared towards the end of the month. They were treated with emetics, followed by calomel; with half an ounce of 01. Ricini, morning and evening, and opium sufficient to allay the pain. Enemata of Oil, Laudanum and starch, with occasional doses of Ipecac. and Opium to promote diaphoresis; drinks of red elm and the wild cherry tree bark; with food of farinaceous substances, or mild porridge. This course strictly followed, very rarely failed of success.

The fore part of October was pleasant; the last of the month was cold, attended with severe frosts—there was but little rain, and the weather generally fair. Bilious remittents had nearly disappeared by the middle of the month, and by the first of November, not a case existed within my knowledge. Intermittents still continued, but were not common. At the setting in of frosty weather, the latter part of October, many people were affected with catarrhal complaints.

In November the weather still continued dry and quite cold. Only one case of fever came under my care; it was of the typhoid type, and successfully managed under the course, as detailed in August. Several cases of Cynanche Trachealis, or Croup, occurred in this month. They were treated with an emetic of sub-sulphate of mercury, made to act very powerfully, and followed by a large dose of Calomel; if this failed to relieve completely as it very rarely did, nauseating doses of acetum scillae and seneka polygala, were given at short intervals, with repeated doses of spts.tereb. in quantity of 15 or 20 drops in cold water; which seldom failed to relieve the cough and breathing; and gradually to cure the disease. If there was much heat, or hardness of pulse, bleeding was the first thing attended to; if the heat were moderate, the mercurial emetic answered every purpose—where the breathing continued bad, with great dryness of the fauces, some thin oil, or volatile liniment was applied to the throat and upper part of the chest, and covered with thin flannel; if this did not relieve, soon, a large blister was applied over the thyroid cartilage from ear to ear, and where it produced a free discharge of serum, afforded sensible relief. The warm or tepid bath, was also of great benefit; diverting the blood from the vital parts and large vessels to the surface; opening the pores and relieving the breathing; and especially so, if used after free bleeding. If irritants were used to the feet, they were composed of onions, bread and milk, boiled together. Under this treatment very few cases of croup proved fatal. It is said that a strong solution of nitrate of silver, applied to the fauces and tonsils with a hair pencil, has been used with good effect, in preventing the formation of the fatal membrane, or exuded coagulable lymph, but I have not known it tried.

The weather in December was generally pleasant, and the inhabitants healthy, with here and there a case of tertian ague.

Marietta, Ohio, November 21, 1827.

The Sickly Seasons of 1822-1823

In 1822-23 this county (Madison) was visited with a terrible epidemic, which struck down many of the hardy pioneers. There was scarcely a family in all this great scope of country (Darby Plains) in which death had not marked one or more of its members as its victim. The exciting causes which led to the development and breaking-out of the disease in question may be, and perhaps are, shrouded in mystery. Up to this time, little attention had been paid to the drainage of the country. The rich soil produced annually enormous coats of vegetation which, prior to the settlement of this county, and for many years afterward, were destroyed by the fires which swept over the prairies every autumn.

For a few years prior to the years in question this part of Ohio was rapidly settled by emigrants from the Eastern States. As a consequence, houses and barns were built, fields were fenced, orchards were planted, and all the necessary means made use of to make home comfortable. By reason of these improvements, it became necessary to arrest the prairie fires, which, prior to this period annually swept the country. The consequences resulting from arresting these fires was that a large portion of the luxuriant growth of vegetation was subject to decomposition, which in connection with the heat of the sun, increased the development of poison of malaria. The arrest of those annual fires took away the purifying agent, or alakloid, which, hitherto, had rendered malaria comparatively inert. This course of reasoning would lead to the detection of the causes which produced the sickly seasons of 1822-23.—From a series of articles contributed to Plain City Press in 1873-74, by Dr. Jeremiah Converse, of Darby Township, Madison County, Ohio.

Obscure Cardio Pulmonary Anoxia

J. J. RHINEGOLD, M.D. AND R. J. RITTERHOFF, M.D.*

Case 16904. The patient was a colored male, married, 48 years of age, a W.P.A. laborer. He was admitted to the Cincinnati General Hospital on February 9, 1942, with the chief complaint, "I have asthma".

History: Subsequent to giving several blood transfusions to his children at this hospital in December, 1940, the patient noted increased fatigability, dyspnoea and "over-heating" on exertion, occasionally nocturnal dyspnoea and a chronic cough. These complaints persisted and finally in January, 1941, he went to the Health Center Clinic, where a physical examination, chest X-rays, and sputum analyses were done. He was informed that he did not have pulmonary tuberculosis and was given medication for his dyspnoea. During the next year his symptoms gradually increased in severity, and he stated that he had lost approximately 25 pounds in weight since the onset of his illness. About 10 days prior to admission he experienced an acute severe attack of dyspnoea which prevented him from eating and lying in bed—liquid medicine given to him by a private physician provided some relief. However, three days before admission he developed a sharp pulling pain in his right abdomen and chest which persisted for 15 minutes. On the day of admission continuous generalized pains in the chest and abdomen appeared. These, increasing in severity during the afternoon, persisted until arrival at Receiving Ward after midnight.

There was no history of hemoptysis, night sweats, palpitation, ankle edema, vertigo or syncope. Past history, family history and history of other systems were noncontributory.

Physical Examination: Temperature 99.2°. Pulse 112. Respiration 28. Blood pressure 90/70. The patient was a poorly developed and poorly nourished colored male appearing chronically and acutely ill. The skin was cold and dry, and and cyanosis of the nail beds was present. Despite clinical evidences of shock, the venous pressure was believed to be elevated. Examination of the head and neck revealed only slight A-V nicking of the retinal arteries and dry mucous membranes. The trachea was in the midline. Respirations were of Cheyne-Stokes type. The chest was symmetrical and expansions, although equal, were diminished. Percussion dullness and absent breath sounds were found over the upper lobes posteriorily and in the left axilla. Breath sounds were also absent anteriorly over the superior halves of the upper lobes. Fine to moderate rales were elicited over the right middle lobe and the base of the left lower lobe. Rhonchi, present at the bases of the lower lobes, cleared with coughing. The heart was not enlarged to percussion. The cardiac rhythm was regular, and the rate varied with the respiratory rhythm, there being tachycardia during periods of apnea, and bradycardia during hyperpnea. A moderate rough systolic murmur, heard best in the left fifth interspace, was present. Friction rubs were absent. The remainder of the physical examination disclosed no pertinent findings, especially no clubbing of the nails.

Hospital Course: The patient was in shock on admission and remained so, despite therapy of nasal oxygen, warmth, and caffeine sodium benzoate. The respiratory rhythm returned to normal; however, the blood pressure never rose above 90/66. Temperature, 99.2 deg. on admission, was 101 deg. eight hours later. The morning after admission the patient lapsed into coma, having previously been only stuperous. At this time a gallop rhythm was noted and the heart was believed to be displaced to the left, and chest examination presented findings suggestive of atelectasis of the left lower lobe. Terminally, 20 hours after admission, the temperature was 100°, pulse 120, and respirations 50.

Laboratory data: Admission chest X-ray disclosed large emphysenatous bullae throughout the upper lobes and increased bronchovascular markings in the middle and lower lobes. A chest X-ray on the day of death revealed displacement of the heart to the left and elevation of the left leaf of the diaphragm. An electrocardiogram was indicative of myocardial damage and right axis deviation. Hematologic study revealed 16 gm. per cent hemoglobin (Salhi), 4.9 million erythrocytes, 5.4 thousand leucocytes, and normal quantitative leucocyte distribution. Serologic examinations for syphilis were negative. Blood chemical determinations for urea nitrogen and sodium were within normal limits. Arterial blood gas analysis made in Dr. E. B. Ferris's laboratory revealed the following:

Oxygen saturation	48 per cent
Oxygen saturation after nasal administration of oxygen	74 per cent
Oxygen capacity	20.3 vol. per cent
Carbon dioxide content	69.6 vol. per cent (normal 45)
pH arterial blood	7.22 (normal 7.45)

These blood gas findings were indicative of "arterial oxygen unsaturation of marked degree due to pulmonary insufficiency. The pulmonary disease has led to a marked retention of CO_2 causing the development of an uncompensated respiratory acidosis.

Final Clinical Diagnosis: Chronic lung disease—chronic bullous pulmonary emphysema; pulmonary atelectasis, left lower lobe; chronic cor pulmonale; possible coronary arteriosclerosis.

Necropsy (N-42-67): Performed 17 hours postmortem by Dr. Wm. M. Cannon.

Gross examination: The thoracic organs were in their usual positions. The mediastinal structures were not deviated and pneumothorax was not demonstrable. The voluminous lungs extended into the anterior mediastinal space and almost completely covered the heart. The pleural spaces,

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This is the ninth of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

lined by generally opaque serosa and obliterated over the lateral aspects of the upper lobes, contained 100 cc. and 150 cc. of transudate, right and left, respectively. Anteriorially, the domes of the diaphragm were at the level of the fifth rib on the right side, and at the level of the sixth rib on the left. The right lung weighed 500 grams and the left 650 grams. The upper lobes presented numerous large bullae, the largest of which was on the right and measured 10x12x15 cu. Both lower lobes and the greater portion of the middle lobe were dark reddish-gray and collapsed. Dissection revealed dark gray, firm, moist lung tissue and numerous thin-walled blebs throughout the upper lobes and moist, subcrepitant to noncrepitant dark reddish-brown lower and middle lobes. The mucosa of the bronchi was generally dark red and covered by gray, thick mucoid material. This latter finding was more prominent in the ramifications of the lower lobe bronchi. The moderately enlarged tracheobronchial lymph nodes consisted of homogeneous, soft, black substance. The heart weighed 325 grams which, on the basis of body length, is within normal limits. Other cardiac measurements disclosed dilatation of the pulmonic, tricuspid and mitral valves with an associated marked enlargement of the chambers of the right heart and moderate left ventricular dilatation. The wall of the right ventricle was 8 mm. in thickness which, in view of the marked dilatation, is indicative of right heart hypertrophy. No valvular deformity was present; however, the cusps of the pulmonary valve were slightly thickened and there was an occasional atheromatous plaque in the mitral valve leaflets. The coronary arteries and their ostia were normal, and section of the interventricular septum revealed firm, apparently normal myocardium. The brain weighed 1275 grams and presented some flattening of the gyri with concomitant narrowing of the sulci. The remainder of the examination was remarkable only for passive hyperemia of the viscera and slight atherosclerosis of the larger arteries.

Microscopic Examination: The principal change in the lung sections was a moderate to marked hyaline thickening of the walls of the small arteries and arterioles. Focally, in addition, there was a slight to moderate atherosclerotic intimal thickening of these vessels. The large and moderate sized arteries were not correspondingly involved, presenting only occasional small intimal plaques. In the upper lobes there was marked dilatation of the alveoli, rupture of the alevolar walls with "clubbing" of their free ends, and subpleural bullae. The alveoli of the lower lobes were moderately collapsed and their hyperemic walls broken and terminally clubbed. There was a slight increase of fibrous tissue throughout the lung framework. The walls of the extrapulmonic bronchi, and particularly those of the lower lobes, were moderately infiltrated by monocytes and lymphocytes and slightly thickened by fibrous tissue. Focally, their lumina contained large quantities of mucus and moderate numbers of neutrocytes. Scattered throughout the framework of all lobes there were oval, linear and stellate perivascular and peribronchial anthracotic deposits with attendant slight fibrosis. The bronchial lymph nodes contained confluent nodular masses which consisted of pigmented epithelioid cells, fibroblasts, and collagen concentrically arranged about a whorled, finely pigmented hyaline mass. An occasional large, discrete nodule of interlacing bands of collagen whorled about a central small, hyalinized artery, typical of silicosis, was present. Small mediastinal lymph nodes presented dilated sinusoids engorged with erythrocytes and a diffuse neutrocytic reaction. In addition to a severe myocardosis, there were miliary areas of acute ischemic necrosis of the heart muscle. Generally, these areas were without cellular reaction and were characterized by hyalinization of muscle bundles and nuclear dissolution. Focally, the process was more established, in that fragmented, poorly staining muscle bundles were undergoing dissolution. In these latter areas there was an intense neutrocytic infiltration. The coronary arteries were remarkable only for slight atherosclerosis of the larger branches. Sections of brain cortex disclosed a slight generalized increase in glial cells, some satellitosis and neuronophagia. Moderate pericellular and perivascular edema was present. In addition, there was a marked subpial deposition of amyloid bodies.

The principal pathologic diagnoses were: Pulmonary arterio- and arteriolosclerosis; cor pulmonale; miliary myocardial infarcts; marked chronic pulmonary emphysema; active chronic and acute bronchitis; bilateral lower lobe atelectasis (mucus plugs); minimal anthracosilicosis; acute passive hyperemia of the viscera; slight cerebral edema; slight generalized arteriosclerosis.

DISCUSSION

The dramatic failure of the organs of respiration leading to death in a period of two days without betraying to the clinician the obvious reason for respiratory failure was baffling. It could be assumed that chronic bilateral lung disease was present and, also, possibly a spontaneous pneumothorax. Bronchial asthma and cor pulmonale were other conditions to be considered. After the patient lapsed into coma it was impossible to analyze his vital signs and to examine his lungs in a way to make the differentiation clinically. Roentgenologically, the nature, extent, and subsequent development of the pulmonary pathologic changes were readily ascertained. This, in conjunction with cyanosis, increased venous pressure, and electrocardiographic evidence of right axis deviation and myocardial damage established the nature of the cardiac abnormality. A final aid in evaluation of the disturbed cardiopulmonary functions was the blood gas analysis which quantitatively measured the clinically apparent anoxemia. This anaysis showed retention of CO_2 and extreme arterial oxygen unsaturation.

Pathologically, the etiology of the pulmonary vascular sclerosis was not apparent. Microscopically, evidences of a chronic pulmonary inflammatory process, other than negligible anthracosilicosis, which may cause secondary vascular changes, were absent. Although there was present a marked active chronic bronchitis with a superimposed acute cellular reaction and considerable quantities of intrabronchial mucus, the other criteria for a diagnosis of bronchial asthma, which also may cause appreciable pulmonary arteriosclerosis, were lacking. The vascular changes appear to be degenerative in nature and similar to those which involve the systemic vessels. However, the anatomic changes in the heart, with their attendant clinical manifestations, are in direct relation to the pulmonary vascular changes. Occasionally, this relationship is not present; however, the conclusion appears justified, on the basis of experimental and clinical investigations, that obstructive pulmonary vascular disease frequently eventuates in strain and hypertrophy of the right heart. Clinically, electrocardiographically, and pathologically this was demonstrable in the present case. The miliary myocardial infarcts, without occlusion or appreciable sclerosis of the coronary vessels, can only be explained by anoxemia and failure of the coronary circulation following obstruction of the lesser circulation, with the attendant decrease in aortic pressure. The right ventricular strain and the miliary myocardial infarcts probably account for the episodes of chest pain which clinically were thought to be manifestations of spontaneous pneumothorax. Atelectasis, not an infrequent finding in cases of right ventricular hypetrophy, further embarrassed the already impaired cardiopulmonary system. Clinically, there were evidences of cerebral anoxia; pathologically, anoxic changes, as seen in the myocardium, were not so apparent in the brain tissue, and further, were obscured by postmortem changes.

False Claims in Anti-Inoculation Pamphlet Exposed by A.M.A.

False statements and misrepresentations contained in an anti-inoculation pamphlet and a letter promoting its circulation are exposed by The Journal of the American Medical Association in an editorial in its September 19 issue headed "The Chiropractic Theory of Patriotism." Both the letter and the pamphlet are assailed by The Journal as not only replete with lies, false insinuations and totally unscientific and malicious propaganda, but also dangerous to the health and morale of the armed forces and the American public. The Journal says:

"The National Serological Society at Davenport, Iowa, has mailed to the chiropractors of the country a letter dated September 3 suggesting that the recipient order so many hundred or so many thousand copies of a four page antivaccinationist pamphlet. The letter contains the following irrelevant statements:

> We have records from the Surgeon General showing that syphilis in compulsory vaccination states is thirty times more prevalent than in states where compulsory vaccination is prohibited by law! Hughes' practice of medicine 14th edition page 184 lists syphilis as one of the complications caused by smallpox vaccination.

"The secretary of a state board of health writes that the pamphlet is being circulated among superintendents of schools in which that board of health is promoting a campaign for immunization.

"The letter and the pamphlet indicate that the president of this organization is Cash Asher. Asher is the author of a tirade against the editor of the The Journal (of the American Medical Association) in particular, and the American Medical Association in general, entitled 'Your Life Is In Their Hands.' According to the International Chiropractic News for July-August 1942 he is also public relations director of the International Chiropractors Association.

"The pamphlet itself, entitled 'Under the Red, White and Blue,' contains the amazing misinformation that the British government abolished compulsory vaccination and inoculation of all kinds in the army, navy and marine corps in 1939.

"The pamphlet discusses with complete disregard for facts or statistical science the rates of smallpox in Italy and Mexico as compared with the United States.

"After referring to a United Press release dealing with the 28,585 cases of jaundice associated with inoculation against yellow fever, the pamphlet adds:

'It is doubtful if we would have that many cases of yellow fever if we sent our entire army into the jungles of Africa'."

Mr. Asher has of course no knowledge of yellow fever and probably not enough about jaundice to warrant a comparison.

"The pamphlet says:

> An investigation by Congress will reveal that thousands and thousands of American soldiers are collapsing after being inoculated. Evidence indicates that between 20 and 40 per cent have to be hospitalized, and that many are incapacitated for service. . . . Congress should find out why England abolished compulsory inoculations in the armed forces. . . . Who is profiting from the sale of serums to the Army and Navy? . . . We are glad to serve our country, but why maim and immobilize soldiers before they have a chance to serve?

"These statements are typical of the lies, false insinuations and similar statements dangerous to Army and public morale promulgated by those who would hinder the war effort.

"In time of war, epidemics constantly threaten. The protection of troops against epidemic disease by routine immunization is accepted as sound practice by the armies of all the warring nations. At a time when the health of the nation, both civilian and armed forces, is essential to eventual victory, such totally unscientific and malicious propaganda continues to arise from sources like Cash Asher. And he is public relations director of the International Chiropractors Association!"

Proceedings of The Council

Need for Keeping All County Societies Well-Organized and Alert Stressed; Streamlined 1943 Annual Meeting Planned; War Activities and Industrial Health Program Discussed

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Sunday, September 20, 1942, at the State Headquarters Office, Columbus. Ohio. The meeting was attended by all members of The Council and by Dr. Forman, Editor of *The Journal*; Dr. Woodhouse, an A.M.A. delegate; Dr. Conard, chairman of the Committee on Medical Preparedness (Procurement and Assignment Committees); Dr. Orlen J. Johnson, assistant secretary of the Council on Industrial Health, American Medical Association; and Messrs. Nelson, Saville and Aszling.

On motion by Dr. Paryzek, seconded by Dr. Swan and carried, the minutes of the two last meetings of The Council, held on April 27 and April 29, 1942, were approved.

Membership statistics were reported by the Executive Secretary as follows: Total membership as of September 20, 1942, 6,623, including 765 members whose dues have been waived or rebated because they are in military service. Comparable data were reported as follows: September 20, 1941, total membership, 6,447; military 258. December 31, 1941, total membership, 6,604; military 278.

NEED FOR ACTIVE COUNTY MEDICAL SOCIETIES STRESSED BY PRESIDENT McCORMICK

Dr. McCormick, the President, emphasized to The Council the vital importance of keeping the State Association and all component county societies alert, active and well organized during the war emergency. He pointed out that each Councilor must keep in very close touch with each society in his district and to assist in keeping each county organization intact and active. Dr. McCormick reported that quite a number of county medical societies have lost officers and important committee chairmen, they having entered military service. Information on such vacancies was presented to members of The Council and Dr. McCormick urged each Councilor to immediately get in touch with such societies and to emphasize the importance of having such vacancies filled immediately.

President McCormick stated that there are many new problems arising as the result of the war and that these must be met in a vigorous manner by the state and local medical societies. He pointed out that Governmental units and organizations other than the medical profession would attempt to meet these problems unless the medical profession, through its organized units, takes the initiative. Dr. McCormick said that it is obvious that important activities which must be undertaken in the fields of medicine and health cannot be handled properly unless all medical societies are thoroughly organized and extremely active.

Dr. McCormick declared that Ohio has done a good job with respect to supplying medical officers for the Armed Forces. He pointed out that alarm has been expressed in some commuities that the civilian population would be neglected because so many Ohio physicians are entering the Army or Navy. This situation must be met by the physicians who remain at home, Dr. McCormick said, adding that each physician who remains to care for the civilian population must make sacrifices and take on added responsibilities. Dr. McCormick declared that in his opinion this must be done and can be done. If it is not done, he said, proponents of Government control medicine and various socialized programs would use the present crisis as an argument for the advancement of their objectional plans and programs.

President McCormick stated that the medical profession is deeply obligated to those members of the profession who have made great sacrifices by entering the Army or Navy and he recommended that The Council request each county medical society to immediately take concrete action to protect the positions and practices of all Ohio physicians who have entered the Armed Forces. Moreover, he recommended that The Council initiate immediately, preliminary plans for the establishment of refresher courses in cooperation with Ohio's three medical schools for the benefit of Ohio Medical officers when discharged from active duty at the end of the war.

On motion by Dr. Sherburne, seconded by Dr. Schriver and carried, The Council unanimously approved President McCormick's recommendations and authorized him to appoint a committee of three to draft a declaration of policies and principles to be transmitted to each county medical society.

Dr. McCormick appointed to such committee: Dr. C. C. Sherburne, Columbus, chairman; Dr. L. Howard Schriver, Cincinnati; and Dr. Edgar P. McNamee, Cleveland. This committee met and drafted a statement which was approved by The Council. (See page 956, this issue.)

PROCUREMENT AND ASSIGNMENT ACTIVITIES

Dr. Robert Conard, Wilmington, chairman of the Committee on Medical Preparedness, which is serving as the Ohio Procurement and Assignment Committee for Physicians, was introduced to The Council and presented a complete report of the work of that committee since May 1, 1942. Mimeographed summaries of the work of the committee and data on the recruiting of medical officers in Ohio were distributed to members of The Council. Dr. Conard requested the cooperation of The Council on the very important problems of re-allocation of physicians to meet the shortages of medical personnel, which may develop as the war continues. He emphasized that the Procurement and Assignment Committee intended to work closely with county medical societies on the matter of filling civilian, industrial, hospital, public health, and medical education needs for medical personnel. Dr. Conard stated that a questionnaire would be sent quite soon to all county medical societies requesting specific information on the situation in each county, and he urged members of The Council to cooperate with the committee in seeing that such information is returned promptly to the committee.

Following a general discussion, during which many questions were asked and members of The Council reported on the reactions to the Procurement and Assignment program in their respective counties, The Council, on **motion** by Dr. Sherburne, seconded by Dr. Micklethwaite and **carried,** approved the activities of the Procurement and Assignment Committee and commended the committee for its work.

CURTAILED AND STREAMLINED 1943 ANNUAL MEETING PLANNED

Dr. McNamee presented the following financial report on the 1942 Annual Meeting held at Columbus the last week in April: Gross receipts, $5,122.00; disbursements, $3,899.77; net income, $1,222.23. On **motion** by Dr. Paryzek, seconded by Dr. Rutledge and **carried,** this report was approved.

It was reported that there are several vacancies among the Scientific Section Officers, due to the fact that several such officers have entered military service or have left Ohio. On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried,** the President was authorized to fill such vacancies at the appropriate time.

The question of the time and place for the 1943 Annual Meeting and the type of program was presented to The Council by the President for general discussion and action. A communication on this matter from Dr. Charles A. Doan, chairman of the Committee on Scientific Work, was read. The situation with respect to transportation under wartime conditions was considered, as well as the difficulties anticipated by obtaining speaking talent.

After careful analysis and discussion of the various problems involved, on motion by Dr. Brindley, seconded by Dr. McNamee and carried, The Council adopted the following policy with respect to the 1943 Annual Meeting:

That the 1943 Annual Meeting be held at an early date next Spring in Columbus instead of Toledo; that a business session of the House of Delegates be arranged for late afternoon or evening and that on the following day a General Session program be arranged consisting of selected subjects pertaining to the care of the civilian population and the problems of industrial health under wartime conditions; that the time, place, arrangements and program be left to the Committee on Scientific Work with instructions to submit recommendations and suggestions to The Council at its next meeting; that neither technical nor scientific exhibits be held at the 1943 meeting.

On **motion** by Dr. Sherburne, seconded by Dr. Rutledge and **carried,** the following recommendations of Dr. Doan were approved: (1) That the Committee on Scientific Work and the Editor of *The Ohio State Medical Journal* cooperate in presenting to the membership generally, through *The Journal,* papers written by selected authors on subjects which might have been scheduled for the General and Section sessions at an Annual Meeting under normal conditions; (2) that the Ohio State Medical Association offer its cooperation to the Office of Civilian Defense and Ohio's three medical schools in presenting courses on chemical gas warfare which the O.C.D. is planning in various parts of the state for the benefit of the members of the medical profession. It was understood that the State Association would not sponsor such courses but would assist those arranging such courses on matters of detail, publicity, etc., in so far as added duties being carried on by the State Headquarters will permit.

INDUSTRIAL HEALTH PROGRAM

Dr. Johnson addressed The Council briefly regarding the activities of the Council on Industrial Health of the American Medical Association and recommendations which have been made by that body to state and local medical societies. He emphasized the importance of an active industrial health program in all counties, especially in industrial areas. Dr. Johnson stated that the active interest and cooperation of all physicians in problems of industrial health were vital, as the way these problems are handled during the war might have an important effect on methods of medical practice in the future. He specifically requested the cooperation of the

A. M. A. CANCELS 1943 SESSION; CURTAILED AND STREAMLINED MEETING OF STATE ASSOCIATION NEXT SPRING IS PLANNED

NEXT Annual Session of the American Medical Association scheduled for San Francisco in 1943 has been cancelled by official action of the Board of Trustees following careful study of the innumerable problems involved as a result of the war. An official meeting of the House of Delegates of the A.M.A. will be held in Chicago at a time to be announced later.

Announcement of the cancellation of the 1943 A.M.A. meeting was made two days after a meeting of the Council of the Ohio Medical Association in Columbus at which it was decided **to curtail considerably and streamline the 1943 Annual Meeting of the Ohio State Medical Association. (See page 946 for official action of The Council.)**

The 1943 Annual Meeting of the Ohio State Medical Association **will be held in Columbus**, instead of Toledo as scheduled, in the early Spring, providing war conditions will permit. It will consist of a late-afternoon or evening session of the House of Delegates to be followed by a one-day program of general sessions, according to present plans. The program will consist of **medical and health problems arising from the war and subjects relating to the practice of medicine under war-time conditions.** Detailed information regarding the meeting will be published after arrangements have been completed. There will be no exhibits.

Ohio State Medical Association on the suggestions of the Council on Industrial Health of the A.M.A. that a statewide program in this field be initiated and that activities in all counties, under the auspices of county medical societies, be started at the earliest possible date. The assistance of the Council on Industrial Health of the A.M.A. was offered by Dr. Johnson.

On **motion** by Dr. McNamee, seconded by Dr. Swan and **carried**, The Council voted to cooperate with the Council on Industrial Health of the American Medical Association on this important work and instructed the Committee on Workmen's Compensation, which previously had been designated as the liaison on this matter between the Association and the A.M.A., to invite representatives of the Council on Industrial Health to meet with that committee at the earliest possible date for the purpose of drafting concrete proposals and programs.

MISCELLANEOUS

Legislative and Election Activities—On **motion** by Dr. Schriver, seconded by Dr. Beer and **carried**, the Legislative Committee was instructed to carry on pre-election and post-election activities similar to those carried on in previous election years.

Waiver of Dues—As a guide to the Executive Secretary on membership details, The Council, on **motion** by Dr. Noble, seconded by Dr. Hogue and **carried**, made the following interpretation of the policy of waiving and rebating of dues during the war: That membership dues in the State Association shall be waived or rebated only for those entering the Army or the Navy.

Resolution Referred—A resolution adopted by the House of Delegates at the 1942 Annual Meeting instructing The Council to draft a standard short form for use of physicians in answering inquiries by insurance companies and to seek the adoption of such blanks by insurance companies in lieu of present forms, was referred to the Committee on Public Relations for study and recommendation, on **motion** by Dr. Beer, seconded by Dr. Lincke and **carried.**

Legislative Proposal—A suggestion that the State Association sponsor legislation to have the Ohio food and drug laws modified to conform with Federal laws was referred to the Committee on Public Relations for consideration, on **motion** by Dr. Knoble, seconded by Dr. Brindley and **carried.**

Vacancy Filled—President McCormick called the attention of The Council to the fact that Dr. H. M. Clodfelter, Columbus, Councilor of the Tenth District, is now on duty with the Navy Medical Corps as Lieutenant Commander, assigned to the Naval Hospital at Jacksonville, Florida. On **motion** by Dr. McNamee, seconded by Dr. Sherburne and **carried**, The Council extended its congratulations and best wishes to Dr. Clodfelter. President McCormick then asked The Council to consider the question of selecting someone to carry on the duties of Councilor during Dr. Clodfelter's absence. On **motion** by Dr. Lincke, seconded by Dr. Hogue and **carried**, The Council elected Dr. George T. Harding, Columbus, president of the Columbus Academy of Medicine, to serve as Councilor of the Tenth

District so long as Dr. Clodfelter is unable to carry on the duties of Councilor during his official term.

Women's Field Army—On **motion** by Dr. Hogue, seconded by Dr. McNamee and **carried**, The Council approved the addition of three members to the Executive Committee of the Ohio Women's Field Army for the Control of Cancer, such members having been selected by that committee at a meeting held on May 24, 1942.

First Aid Proposal—A suggestion, emanating from the Regional Fracture Committee of the American College of Surgeons, that the State Association support legislation to make it compulsory that the operation of ambulances be under the immediate supervision and direction of a person holding a first aid certificate, was referred to the Committee on Public Relations, on **motion** by Dr. McNamee, seconded by Dr. Paryzek and **carried.**

Woman's Auxiliary—Proposed amendments to the Constitution and By-Laws of the Woman's Auxiliary to the Ohio State Medical Association creating the office of treasurer in addition to that of secretary were approved, on **motion** by Dr. Paryzek, seconded by Dr. McNamee and **carried.**

Memorial Resolution—By standing vote The Council adopted a resolution in memory of the late Dr. John B. Alcorn, former president of the State Association, former chairman of the Committee on Public Relations, and at the time of his death an Ohio delegate to the American Medical Association, which resolution called attention to the many years of activity and efficient service performed by Dr. Alcorn in the interests of the medical profession and medical organization, and extended to Mrs. Alcorn and other members of Dr. Alcorn's family the sincere sympathy of the Ohio State Medical Association.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Film on Peptic Ulcer Available

A new motion picture in color with a sound track, entitled "Peptic Ulcer", has been made available for free showings before groups of physicians by John Wyeth and Brother, Inc., Philadelphia. The film is said to be the first complete motion picture on peptic ulcer. It was produced under the direction of the Department of Gastroenterology of the Lahey Clinic, Boston, and has been awarded the seal of approval of the American College of Surgeons. Running time of the film is 45 minutes. Arrangements for showing the film may be made by writing to the Professional Service Department of John Wyeth and Brother, Inc., Philadelphia, Pa.

Recent Attorney General Opinions of Interest To Physicians

Among recent opinions of Attorney-General Thomas J. Herbert are the following of special interest to the medical profession:

No. 5410—The furnishing of food, clothing, shelter, medical care or other means of subsistence at public expense to a person not under county care under authority of Sec. 3476, G. C., having a legal settlement in the county, in a privately owned home or lodging house is "poor relief" within the meaning of that term as used in Secs. 3991 to 3991-12, both inclusive, G. C. (2) The furnishing of food, clothing, shelter, medical care or other means of subsistence at public expense to a person in a county home or county hospital is not "poor relief" within the meaning of that term as used in subparagraph 9 of Sec. 3391-2, G. C., but is rather an obligation of the county, as such, under Sec. 3476, G. C.

No. 5411—(1)A board of education may in pursuance of the provisions of Sec. 7692-1, G. C., require teachers and janitors who are employees of the board to submit to health examinations as prescribed therein by the school physician or local health officers functioning in the district where the duties prescribed by said section have been delegated to and assumed by the health officers, and to have X-ray examinations, Wassermann or other blood tests, and vision and hearing tests made, if, in the opinion of the physicians or health officers such examinations and tests are required for the protection of the health of the pupils and teachers in the schools of the district. (2) School teachers and janitors may, in lieu of submitting to examinations by the school physicians or health officers, as the case may be, file with the board of education a written certificate of a reputable physician stating that the required examinations have been made and setting forth the results thereof. (3) A physician who furnishes a written certificate pursuant to the provisions of Sec. 7692-1, G. C., is not required to state under oath that the facts set out therein are true, nor is he required to have his signature thereto acknowledged before a notary public, and, consequently, a board of education may not lawfully impose such requirements. (4) A board of education is not authorized to require school teachers or janitors to bear any of the expense of health examinations provided for by Sec. 7692-1, G. C. (5) The health regulations prescribed by Sec. 7692-1, G. C., apply equally to school pupils, teachers and janitors, except that all pupils referred to the school physician shall be examined, whereas only such examinations of teachers and janitors should be made as are, in the opinion of the school physician, necessary to protect the health of the pupils and teachers.

Dr. H. L. Abbott, Tiffin, a 1942 graduate of Northwestern University Medical School, was among the physicians licensed following examination by the State Medical Board at its Summer meeting. His name was inadvertently omitted from the list published in the August issue of *The Journal.* He is now on the staff of Harper Hospital, Detroit.

Part of Program for Northwestern Ohio Meeting, October 6, Hotel Harding, Marion, To Be Devoted to War Subjects

AN interesting and timely program, part of which will be devoted to war subjects, has been planned for the 98th meeting of the Northwestern Ohio Medical Association, which will be held at the Harding Hotel, Marion, Tuesday, October 6.

At a noon luncheon, Dr. Edward J. McCormick, Toledo, president of the Ohio State Medical Association, and Mr. William Hessler, news analyst for station WLW, will discuss "Democracy at War."

Physicians from the 21 counties in the Third and Fourth Councilor Districts, which comprise the Northwestern Ohio Medical Association, have been invited to attend the all-day meeting, and their lady guests have been invited to the luncheon. During the scientific sessions, the ladies will be guests of the Women's Auxiliary to the Marion Academy of Medicine.

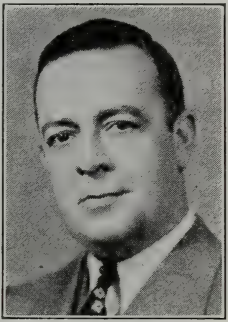
Speaker for the initial session at 10:30 a.m. will be Dr. Charles A. Doan, professor of medicine at Ohio State University College of Medicine, whose subject will be "Medical Aspects of Gas Warfare in Civilian Defense." Dr. Doan recently took a special course in gas warfare at the University of Cincinnati sponsored by the Office of Civilian Defense and designed for medical school teachers who will in turn direct extension courses on the same material for practicing physicians.

Speakers at the afternoon session will be Dr. Martin Diethelm, Toledo, whose topic will be "Obstetrical Problems," and Dr. William N. Taylor, Columbus, professor of genito-urinary surgery at Ohio State University College of Medicine, who will discuss "Urology in Relation to General Practice."

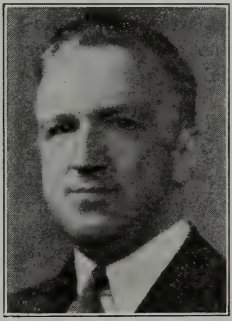
Dr. McCormick and Mr. Hessler both have backgrounds which suit them well for their luncheon topics. As a veteran of both the British and American armies in World War I, and as former grand exalted ruler of the Elks, Dr. McCormick has devoted much time and effort to promoting public interest in democratic action, and as an official of medical organizations he has been very active on behalf of preserving the ideals of American medicine.

Mr. Hessler, besides being a nationally known radio news commentator, is also foreign editor and chief editorial writer of the **Cincinnati Enquirer.** He studied foreign relations at the University of Madrid as a Carnegie Fellow in International Law, and later he served as American vice counsul in Bombay, India. He is the author of a textbook on international relations used extensively in college political science courses, and he recently spent three months in South America studying political affairs there on a grant from the Carnegie Foundation.

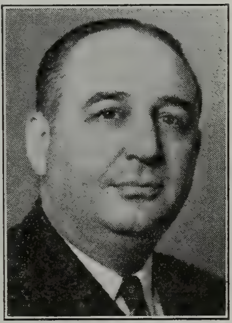
Reservations for the luncheon session of the meeting may be made by any physician by writing to Dr. W. B. Recker, Leipsic, secretary of the Northwestern Ohio Medical Association, or by returning the reservation postcard mailed to all members in the Third and Fourth Districts.



Dr. McCormick



Dr. Doan



Dr. Diethelm

Supply of Bananas for Victims of Celiac is Assured

Provisions to supply bananas to children suffering from celiac, a nutritional disturbance of late infancy and early childhood for which a diet of bananas is the indicated therapy, have been made by the United Fruit Company, according to newspaper reports. Despite the shortage of this tropical food brought about by U-boat activity in the Caribbean, the fruit company is endeavoring to keep in stock a sufficient supply to meet the needs of celiac sufferers, and they will be given priority for the amount needed.

Physicians who need bananas for patients who have celiac are urged to write the Fruit Dispatch Company, Pier 3, North River, New York City. A physician's statement will be necessary to obtain bananas for this purpose.

WAR NOTES

COMMANDER ARTHUR J. WHITE, Navy medical officer who recently was decorated for his heroism aboard the aircraft carrier Lexington while that vessel was under fire and sinking, is a native of West Leipsic, Ohio, and a member of the 1917 class of Western Reserve University School of Medicine. The commander received the naval cross for refusing to abandon ship although both ankles and shoulder were fractured and for transferring his patients from the doomed carrier to a rescue ship before leaving his post.

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Lt. Comdr. Malcolm L. Pratt, who before the war was a Bellefontaine surgeon, is reported by the Navy Department as missing in action following a landing in the Solomon Islands by the marine detachment for which he was a regimental surgeon. A correspondent for the International News Service reported that he and Commander Pratt were in the same landing boat when the marines sneaked ashore at Tulagi Bay, but he did not mention what befell the Ohio physician.

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When Mrs. Winston Churchill recently opened the first of seven clubs for American nurses in England, it was accepted on behalf of the Army by Col. Paul R. Hawley, chief surgeon in the European theater, whose home is College Corners, Ohio.

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Dr. Harold Loucks, son of a former Findlay College professor, is being held prisoner by the Japs in Peiping, China, according to information from the American Red Cross. Doctor Loucks had served as head of the surgical department of Union Medical College, Peiping, and had traveled as far as Manila en route home when the United States entered the war. It is believed that Mrs. Loucks was kept in the Philipines, and no word as to the whereabouts of their small son who was with them has been received.

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Women's Auxiliaries to the Ohio State Medical Association and the Belmont and Mahoning County medical societies are among the 29 medical auxiliaries in the United States which have contributed 22 emergency field sets, supplies, and equipment, valued at $15,000 to the Medical and Surgical Relief Committee of America, according to an announcement by that organization.

The commissioning of Capt. James D. King, medical corps officer who was recently associate professor of surgical research at Ohio State University College of Medicine, may give him his second taste of modern warfare. A native Chinese, Doctor King was in Peiping, China, on a mission for the Rockefeller Institute, when Japan began its undeclared war on that nation. The American-educated physician helped organize a medical unit to assist air raid victims, and, as a member of the Chinese army, he was stationed four months in Shanghai. During a Japanese attack on that city, he was struck in the shoulder by shrapnel while operating on an air raid victim. Later he narrowly escaped Japanese soldiers, arranged passage on an Italian liner, and came to America. Coming directly to Columbus, he has been engaged in surgical research at Ohio State University since his arrival, having been awarded his Ph.D. in 1940. His medical degree is from George Washington University. Commissioned Sept. 9, Captain King is proud of being one of the non-citizens who are officers in the United States Army. He has been assigned to a field hospital in the western part of the country.

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Capt. E. L. Montgomery, Circleville physician on duty with the 37th Division somewhere is in the South Pacific, wrote to his family that he recently was the supper guest of the chief of a native tribe on the island on which his unit is stationed.

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Col. Warren C. Fargo, Cleveland, was recently elevated to the position of assistant commandant in direct charge of the Medical Department Service School, Brooke General Hospital, Fort Sam Houston, Texas. For 15 months he had served as executive officer of the school. Describing the school in a letter to *The Journal*, Colonel Fargo writes:

"At this school we receive each month, from the Medical Replacement Center at Camp Barkeley, Texas, and from other components of the Medical Department here in the Southern portion of the United States, 300 soldiers for training. We give them courses of two months in medicine and surgery and three months in dentistry, laboratory, pharmacy, and X-ray. Our courses are conducted by lectures and demonstration in the earlier stages, and then practical work in laboratories at the hospital or at Fort Sam Houston provide clinical application for the instruction received. Our graduates are rated as technicians and are sent on to their organizations to carry out in actual practice the knowledge which they have been given."

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Lt. Col. Theodore Burstein, Canton physician, was recently appointed commanding officer of the 32nd Station Hospital, Camp Rucker, Ala. This unit is expected to be ordered to duty overseas in the near future. Colonel Burnstein was, until his present assignment, in charge of the hospital at an internment camp for prisoners of war and enemy aliens at Camp Livingston, La.

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As a direct consequence of the recent heavy influx of both military and civilian population, the city commission of Dayton has enacted a venereal disease quarantine ordinance which gives the health officer authority to quarantine persons who have syphilis or gonorrhea in the infectious stages. They may be detained in hospitals, homes, or other suitable places when the health commissioner considers it necessary for the public health.

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Ohio physicians enrolled at the present course for aviation medical examiners conducted at the School of Aviation Medicine, Randolph Field, Texas, are: Capt. John N. Carnes, Gallipolis; Capt. Charles J. Deishley, Columbus; Capt. Hiram H. Hardesty, Cleveland Heights; 1st Lt. Solomon Bershadsky, Cincinnati; and 1st Lt. Samuel T. Moore, Cleveland.

* * *

Plans for the construction of a 1500-bed Army base hospital just outside Cambridge were announced recently by the War Department. The hospital, first to be built in Ohio, will consist of 60 cottage-type units. Work will begin on the project immediately, and it is expected to be completed by January 1, according to press reports.

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Owing to unusual health hazards which would be encountered by diabetics in the event of air raid, it is suggested by the New York Diabetes Association that persons who are afflicted with that disease take certain precautions. In addition to the special identification cards which have been suggested for all diabetics in the past, the association urges that those in likely target areas carry with them at all times a supply of insulin, an insulin syringe, and concentrated foods with the equivalent of their normal carbohydrate intake.

MEDICAL OFFICERS SHOULD KEEP JOURNAL INFORMED OF CHANGE OF ADDRESS

Letters received from many Ohio physicians now in military service indicate that they appreciate receiving and enjoy reading The Ohio State Medical Journal. This is gratifying to The Editor and his associates. Every effort will be made to get The Journal into the hands of every member of the Association in the service, each month and regardless of where he is.

However, The Journal must have the cooperation of men in the service in order to fulfill this promise. In other words, please keep The Journal informed of a change in your assignment. It is understood, of course, that this information must conform to army and navy censorship regulations. Army or Navy Post Office addresses will suffice in event you are on overseas duty.

Moreover, The Journal will welcome news items and personals from Ohio physicians in the service. Those back home are just as anxious to read of your experiences as you are to learn about what's doing back in the Buckeye State.

All supplies of quinine and totaquine, regardless of size, are now subject to the restrictions of Conservation Order M-131, it was pointed out recently by the Health Supplies Branch of the War Production Board. Prior to June 19, this year, supplies of 50 ounces or less could be sold without restriction, but since that date, retail druggists and other vendors have not been permitted to sell any quantity except as an antimalarial agent. This order applies to capsules, powder, solutions, pills, tablets, and to quinine and totaquine stocks of all other descriptions whether or not packages have been opened. The same restrictions, according to another order, have been placed on sales of cinchonine, cinchonidine, and quinidine.

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The Chief Medical Officer of the Office of Civilian Defense announced recently that he has assigned an OCD medical officer to direct liaison activities between Chiefs of Emergency Medical Service and defense plant authorities for the purpose of providing additional emergency medical service in the event of a catastrophe in the plants. Plans had previously been worked out between the OCD and the War and Navy Departments outlining methods by which local Chiefs of Emergency Medical Service are to cooperate with authorities in plants working on Army and Navy contracts, both government-owned and private, for providing such emergency service. The services of this newly appointed medical officer in the national OCD headquarters are available to assist Regional Officers and, through them, Chiefs of Emergency Medical Service who are called upon by plant authorities for such assistance.

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Appointment of Dr. Derrick T. Vail, Cincinnati to the rank of lieutenant colonel and his assignment as chief ophthalmologist for the American Expeditionary Forces were announced recently by the War Department. Colonel Vail, who has been professor of ophthalmology at the University of Cincinnati College of Medicine, will go overseas with a team of specialists, each of whom will have charge of his particular branch of medical services for American troops abroad. Dr. Vail's duty abroad with American soldiers will have a particular significance, for in February his son, Derrick T. Vail III, a pilot with the RAF, became Cincinnati's first war casualty when he failed to return from a flight mission.

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Mr. Albert Scheidt, administrator of Miami Valley hospital, Dayton, for the last 18 months, has been commissioned a captain in the medical administrative corps and will be attached to the 27th Evacuation hospital, a unit of the University of Illinois.

* * *

Capt. Robert J. Semons, Carey physician now in the Army Medical Corps, was one of the passengers aboard the ill-fated transport U.S.S. Wakefield (formerly the United States Lines' "Manhattan") when that ship caught fire in the mid-Atlantic on Sept. 3. Captain Semons had been in Northern Ireland with the Army and was returning to America when the mishap occurred. He was not injured, but all of his personal effects were lost.

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Under the new law, known as H.R. 7242, officers of the Medical Administrative Corps may be promoted up to and including the rank of colonel. The law provides also that MAC officers who had been promoted to ranks higher than captain and who had been receiving only captain's pay, because of a decision of the Comptroller General based on limitations imposed by the National Defense Act, will receive retroactive pay increment from Sept 9, 1939.

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Add "it's a small world, etc:" Maj. John H. Marshall, Findlay physician now on duty with the Army overseas, chanced to meet a friend from Findlay, Pvt. John Firmin, on a street in an Australian city recently.

By recent order of the Chief of Naval Personnel, the insignia of Navy Medical Officers qualified as Flight Surgeons is to be the traditional gold wings with a gold oak leaf and silver acorn superimposed on the central oval crest. This pin is worn over the left breast. The symbols of the oak leaf and acorn are associated with the Druids, ancient medical priests of the Britons, who wore white robes with these designs embroidered in gold on the sleeve. The Medical Corps of the Navy has used these insignia since 1832.

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Because Dr. J. O. Crist, Centerburg, has been recalled to active duty with the Army Medical Corps, his duties as Knox County Health Commissioner have been taken over by Dr. F. C. Anderson of Mt. Vernon. Major Crist was released from active duty at Camp Shelby shortly before the United States entered the war.

* * *

Mrs. Walter Matuska, Ottawa, whose husband, Lt. Col. Walter Matuska, is chief of staff at the Army base hospital, Fort Knox, Ky., has followed her husband into military service by joining the Woman's Army Auxiliary Corps and reporting for training at Ft. Des Moines, Ia., thereby becoming Putnam county's first WAAC.

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Capt. Arthur D. G. James, Columbus, former resident at University Hospital there, is one of the medical officers attached to U.S. Army Hospital No. 65, the Duke University unit, which was recently activated and ordered for duty at an unannounced station.

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Maj. Emil Ersay, Cleveland physician, now a flight surgeon with the Army Air Force, has arrived in Ireland, according to word received by his family.

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The Youngstown plan of pooling ambulances for emergency purposes was recently called to nationwide attention through publication of an item concerning it in the "Medicine and the War" section of *The Journal of the American Medical Association*. Under the plan, all civilian defense ambulances, which are supplied by undertakers, are pooled and assigned to one of two identification centers, and they will report there at the first "alert" and await orders from the city's control center. Drivers and assistants are trained in first aid.

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Lieut. Col. Sam F. Seeley, M.C., U.S. Army, executive officer of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, has been detached from that duty and assigned as executive officer of the United States General Hospital at White Sulphur Springs, W. Va.

Many Proposals on Medical and Health Subjects Being Dropped Into Congressional Hopper: A Few Analyzed

CHUCKING of proposed medical and health legislation into the hoppers of the United States Senate and House of Representatives continues at a lively clip. Much of it is introduced for the purpose of expanding governmental services to meet new problems which have developed as a result of the war. A few of the bills are perennials, sponsored by those who see an opportunity to capitalize on the present emergency. It is clearly indicated that those interested in seeing that only constructive proposals are enacted will have to be unusually alert during the ensuing months.

Here are a few examples of the type of measures which The Congress is being requested to consider:

* * *

Extension of the Social Security Act to include medical, surgical and hospital benefits is proposed in H.R. 7534 introduced by Representative Eliot, Massachusetts.

Among other changes this 68-page bill provides for systems (1) of disability insurance benefits, including medical, surgical, institutional, rehabilitation and other services to be supplied by the Social Security Board; (2) of temporary disability or sickness benefits; (3) of maternity benefits conditioned on compliance with such regulations with respect to antepartum, confinement and postpartum care as may be prescribed by the board, and (4) of hospitalization benefits of not less than $3 nor more than $6 for each day of hospitalization, such benefits to be available to the wife and children of the employee. In lieu of the payment of such benefits to beneficiaries, the bill proposes, the board may make arrangements with accredited hospitals for the payment of the reasonable cost of hospital services. The base of the act will be broadened to embrace within the Old Age and Survivors' Insurance provisions certain employment now exempt, such as employment in connection with charitable, scientific and educational institutions, and what the bill renames as "social insurance contributions" by employers and employees will be increased to 5 per cent for the calendar years 1943, 1944 and 1945, to 5.5 per cent for the calendar years 1946, 1947 and 1948, and to 6 per cent for each calendar year thereafter.

* * *

S. 2738, introduced by Senator Barkley, Kentucky, for Senator George, Georgia, proposes amendments to the Social Security Act to appropriate funds and establish machinery for maternity services for wives of men serving with the armed forces and expansion of child health activities. The appropriation for the first year would total $7,500,000. Administration would be in the hands of state agencies now carrying on activities under the supervision of the U. S. Children's Bureau. Part of the funds could be spent for child health work in defense areas.

* * *

A bill to provide for the vocational rehabilitation of individuals suffering from war-connected or other disabilities had been introduced by Senator LaFollette, Wisconsin. (S. 2714.)

The term "vocational rehabilitation" is defined as the rendering of a disabled individual fit to engage in a remunerative occupation and his placement in employment, including, where needed, physical restoration or repair, medical examination and care, prosthetic and other devices, physical and occupational therapy, training, placement in employment, and other appropriate services. "Rehabilitation training" means any training given to render a disabled person fit for employment.

The title defines the term "disabled individual" to mean any individual who has attained the age of 16 years and who by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is, or may be expected to be totally or partially incapacitated for remunerative occupation. A "war disabled individual" is defined to mean a disabled individual whose disability proximately resulted from a personal injury or disease incurred while he was a member of the armed forces of the United States or the Army of the Philippines, or whose disability proximately resulted from a war injury. The term "war injury" is defined as a personal injury sustained after December 6, 1941, proximately resulting from a war-risk hazard, and includes any disease proximately resulting from such a personal injury. In the case of a civilian defense worker, the term also includes a personal injury sustained by such worker after December 6, 1941, while in the performance of his duty as such worker, or disease incurred by him which was proximately caused by his performance of such duty after such date. In the case of a civilian detained by the enemy whose detention commenced after December 6, 1941, the term "war injury" also includes a personal injury or disease resulting from such detention.

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Congressman Coffee, Washington, has a bill pending (H. R. 7411) which would permit the Social Security Board to match payments by the states for medical care.

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Reorganization of U. S. Public Health Service is proposed by the Administrator of the Federal Security Agency who has submitted to the Senate a draft of proposed legislation relating to the organization and functions of the public health service. No bill has as yet been introduced to make effective this recommendation but the following comment with respect to the matter was published in the August 28 issue of the Congressional Daily:

"The draft of a proposed law to reorganize and redefine duties of Public Health Service was submitted to House yesterday by Acting Administrator of Federal Security Agency. The communication pointed out that proposed changes in organizational set-up were necessary to increase 'the efficiency of the operations of the Public Health Service.' At present, Surgeon General of Public Health Service is charged with the responsibility of overseeing personally seven administrative divisions, National Institute of Health, National Cancer Institute, St. Elizabeths Hospital, Freedmen's Hospital, and Office of the Chief Clerk.

" 'This structure,' Acting administrator of Federal Security Agency stated, 'is very unwieldy, and the Surgeon General and I both would like to have a rearrangement which will result in a more simplified organizational pattern'."

Incidence of Poliomyelitis is Low, Health Department Reports

Incidence of poliomyelitis in Ohio during the season of peak prevalence just past has been comparatively very low, according to figures tabulated by the Division of Child Hygiene, Ohio Department of Health. During the "polio season" of 1941, nearly three times as many cases were reported as have been reported this year. By Sept. 21 a total of 105 cases had been reported for the state, whereas by the same date in 1941 the total was 299. Highest incidence of poliomyelitis reported for Ohio in recent years was a total of 602 cases in 1940, most of which were reported during August and September.

The greater portion of Ohio's cases this year have been centered about the metropolitan areas in Cuyahoga and Summit counties, the Health Department figures show. By September 21, 22 cases had been reported from Summit County and 16 cases had been reported from Cuyahoga County. Hamilton County had reported 17. There were six in Lucas County, five in Montgomery County, three in Darke, two each in Miami, Clark, Logan, Belmont, Portage, and Ashtabula, and the following counties had reported one each:

Franklin, Pickaway, Highland, Scioto, Williams, Fulton, Henry, Putnam, Mercer, Shelby, Preble, Lake, Trumbull, Mahoning, Jefferson, Muskingum, Perry, and Athens.

Must Conserve Medical Supplies

The importance of conserving dealers' stocks of medical and surgical supplies is emphasized in the following statement from the Chief Medical Officer of the Office of Civilian Defense, which was recently given wide circulation among local Chiefs of Emergency Medical Service, hospitals, drug supply firms, and medical organizations:

"The medical profession and the hospitals of the nation will shortly be obliged to depend upon dealers' stocks of medical and hospital supplies if they are to maintain their present level of efficiency. The continued shortage of raw materials makes it increasingly evident that even the armed forces may have difficulty in securing their requirements. Stocks on the shelves of the dealers of this nation constitute the only reserve of medical and hospital equipment which may be available in the near future to meet civilian needs. The hoarding and dead storage of equipment and supplies for a possible emergency should, therefore, be discouraged. Any unexpected emergency could be met by our present civilian medical and hospital resources; continued disaster could only be met by the utilization of military stores which would be made available if there were urgent need.

"Any surplus or obsolete equipment now in the possession of physicians and hospitals ought not to be dispersed at this time, because of the difficulty of replacement and the possibility that it may be needed for the establishment of emergency base hospitals".

Military Neuro-Psychiatry Lectures Are Offered by Cincinnati University

A course of 14 lectures in Military Neuro-Psychiatry will be given by the faculty of the department of psychiatry, University of Cincinnati College of Medicine, Fridays at 5 p.m. from Oct. 23 through Feb. 5 in the surgical amphitheatre of Cincinnati General Hospital. Any interested physician may attend free of charge. Topics presented will cover all phases of neuropsychiatry as it is related to modern warfare.

Lecturers will include: Dr. Charles E. Kiely, Dr. Philip E. Piker, Dr. Charles D. Aring, Dr. Virginia T. Graham, Maj. Kenneth G. Moore, M.C., U.S.A., Dr. Milton Rosenbaum, Dr. Maurice Levine, Dr. Joseph P. Evans, Dr. Eugene B. Ferris, Jr., Dr. Leon Goldman, and Dr. John Romano.

Further information may be obtained by writing to Dr. Charles D. Aring, associate professor of neurology, University of Cincinnati College of Medicine.

Takes Infantile Paralysis Post

Dr. John L. Lavan, Toledo city health commissioner and director of health service in Toledo schools, has resigned those positions to accept appointment as director of scientific research for the National Foundation of Infantile Paralysis. His resignation is effective Oct. 1. Dr. Lavan served as Toledo's health director in 1930 and 1931, after which he was health commissioner in Grand Rapids, Mich. He returned to Toledo in January, 1941.

Do You Know - - -

Of 169,969 persons examined during the first year of Ohio's premarital physical examination law, 2.16 per cent had syphilis. Those showing positive laboratory examinations were 54.2 per cent women and 45.8 per cent men.

* * *

Dr. C. A. Craig, Cambridge, is the Republican nominee for the Ohio House of Representatives from Guernsey County.

* * *

Dr. Harold L. Hansen, secretary of the Council of Dental Therapeutics of the American Dental Association, and director of the A.D.A. Bureau of Chemistry, has been appointed administrative assistant to Dr. Theodore G. Klumpp, president of Winthrop Chemical Company.

* * *

The Cleveland Health Museum recently welcomed its 60,000th visitor since its opening in November, 1940.

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According to the *New York Times*, the British Medical Association on September 9 rejected by a vote of 177 to 20, a proposal to have it endorse the establishment of a full time salaried government medical service.

* * *

The American Society for the Hard of Hearing, Washington, D.C., will sponsor the observance of National Hearing Week, October 25-31, to acquaint the public with the causes of deafness and the need to guard against them. "Keep 'Em Hearing" is the theme of the observance this year.

* * *

Dr. and Mrs. Howard E. Jones, Circleville, recently celebrated their 60th wedding anniversary. Dr. Jones has been practicing medicine for 66 years.

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The Eighty-Fourth general and scientific sessions of the American Dental Association scheduled to be held at Boston, August 24-28, were canceled in line with the policy of the Office of Transportation discouraging the holding of large conventions. The House of Delegates, Board of Trustees and committees held a business session in St. Louis on the same dates.

* * *

Among the guest speakers at the Seventy-Fifth Annual Meeting of the Michigan State Medical Society, September 23-25 at Grand Rapids, were: Dr. John A. Toomey, Cleveland, who discussed "Chemotherapy in Childhood," and Dr. Roy W. Scott, Cleveland, who spoke on "Clinical Aspects of Arteriosclerosis."

The annual meeting of the American Association of Railway Surgeons which was scheduled to be held in Chicago, September 10-12, was cancelled and all such future meetings postponed for the duration of the war.

* * *

Officers of the American Medical Women's Association include Dr. Helena T. Ratterman, Cincinnati, president, and Dr. Mabel E. Gardner, Middletown, secretary.

* * *

Dr. and Mrs. Joseph Blickensderfer, formerly of New Philadelphia, are now making their home with their son, Joseph P. Blickensderfer, in Norman, Oklahoma, where the latter is on the faculty of the state university. Formerly health commissioner of New Philadelphia and Tuscarawas County, Dr. Blickensderfer is widely known in Ohio public health circles.

* * *

Dr. Claude C. Pierce, until March 1 medical director of the U. S. Public Health Service in charge of district number 1, New York, has been appointed national medical director of the Planned Parenthood Federation of America, Inc., formerly known as the Birth Control Federation of America, Inc., according to an announcement from the society's headquarters in New York.

Woman's Auxiliary Starts Loan Fund for Student Nurses

A loan fund of $300 has been created by the Woman's Auxiliary to the Ohio State Medical Association for the purpose of financially assisting student nurses in the second or third year classes of recognized schools of nursing in Ohio. Any second- or third-year nursing student in such school who is unable to continue her education for financial reasons and who has the recommendation of the Ohio State Nurses Association is eligible to apply for a loan. Application blanks may be obtained from the Ohio State Nurses Association, 50 E. Broad St., Columbus, or from Mrs. Ralph W. Hoffman, 1534 W. First Ave., Columbus, chairman of the Auxiliary's Student Nurse Loan Committee.

Loans will be limited to schools of nursing in hospitals having an average of 100 or more patients daily, and at least one loan will be made to a University School of Nursing. The applicants granted loans must enter into an agreement with the committee that the money loaned is to be used only for fees, books, and necessary equipment for nursing education, excepting clothing. Financial guarantee must also be offered through a non-interest-bearing promissory note and adaquate life insurance.

Steps Recommended to Guarantee Restoration of Practice and Positions Vacated by Physicians Entering Military Service

RECOGNIZING the obligation which the medical profession as a whole owes to physicians who are volunteering their services to the armed forces and believing that concrete action should be taken to do everything possible to protect the practices and positions which are being given up by Ohio doctors to serve the nation in this time of crisis, The Council of the Ohio State Medical Association in regular session on September 20, 1942, adopted the following resolution and recommendations for the consideration of all county medical societies and expressed the hope that each society would take immediate steps to put the suggestions offered into effect:

"Whereas, many members of the medical profession of Ohio having entered the Armed Forces of the United States of America are therefore making great personal sacrifices, and

"Whereas, many of these men are vacating positions in medical schools, hospitals, and industry and other important posts and all are giving up established practices, built after years of effort and endeavor,

"Therefore, Be It Resolved that the Officers and The Council of the Ohio State Medical Association request of the officers and members of all component county medical societies that immediate action be taken to guarantee to those serving in the Armed Forces of our country that their positions and practices will be restored to them after the war insofar as restitution is possible."

In adopting the foregoing resolution The Council recommended to all county medical societies that the Committee on Medical Preparedness of each society, or a special committee selected by the society, be designated to work out all details and to administer the mechanics of protecting the status of men entering the service as set forth in the resolution.

Also, The Council instructed the Committee on Education of the Ohio State Medical Association to initiate preliminary plans, in cooperation with the proper officials of the College of Medicine, University of Cincinnati, School of Medicine, Western Reserve University, and College of Medicine, Ohio State University, for establishing **refresher courses for the benefit of Ohio physicians when discharged from military service at the conclusion of the war, without cost to such physicians if such arrangement is feasible.**

Moreover, The Council officially approved the insert appearing opposite this page

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and recommended that each physician, who for various and valid reasons will remain on the home-front to care for the medical needs of the civilian population, sign such card and display it in a prominent place in his office.

It was the feeling of The Council that the obligation which the medical profession owes to those of its members who are making extreme sacrifices during the war must be fulfilled collectively and individually as suggested above.

Ohio Physicians Now In Service Total 2027; Additional 500 Anticipated by End of Year; Recruiting Will Be Continued; Problems of Re-allocation Studied

DATA reviewed by the Ohio Procurement and Assignment Committee for Physicians at a meeting of the Committee on September 13, 1942, indicated that the medical profession of Ohio is not lagging in the nation-wide recruiting program for medical officers for the Army and Navy.

Statistics presented to the committee on September 13 by Dr. Robert Conard, Wilmington, chairman, and brought up to date as *The Journal* went to press on September 23, revealed that 2027 Ohio physicians have given up civilian practices to become medical officers in the armed forces, 1859 being commissioned officers of the Army Medical Corps and 168 of the Navy Medical Corps.

It is the belief of the Procurement and Assignment Committee that by the end of the year this figure will be increasd by approximately 500. It was pointed out to the committee by Dr. Conard that several hundred Ohio physicians have applications for a commission pending with the Surgeon General, Air Surgeon or the Navy and that several hundred physicians who have been classified as "available for military service," have taken no action as yet toward getting a commission.

"Ohio's contribution of medical officers will increase by approximately 500 by the end of 1942 as a result of favorable action on applications now pending and the enrollment of many of those physicians who have delayed in volunteering their services," Dr. Conard predicted.

In his report to The Council of the State Association on September 20, Dr. Conard said:

"Approximately 82 per cent of the Ohio physicians of military age as of May 1, 1942, have taken definite action toward obtaining a commission in the Army or Navy or an appointment in some other governmental agency. The balance, or 18 per cent, is made up of physicians who are considered by the committee as unavailable for military duty because they cannot be spared at present in civilian practice and of the comparatively small number of physicians who can be spared but who for various reasons have not volunteered their services. **Every physician of military age who is classified as available for military duty owes it to his country, his profession, his colleagues now in the service and himself to volunteer immediately. The committee cannot compel any physician to enter the military service—that is the business of Selective Service. The fact that so many Ohio physicians have voluntarily entered the service would seem to indicate that compulsion will not be necessary to meet the ultimate needs of the Army and Navy for medical officers. However, if persuasion and appeal fail to achieve satisfactory results, the committee will have no alternative but to request the Selective Service System to deal as it sees fit with those physicians who can be spared from present capacities for military duty."**

Facilities for accepting the applications of physicians are being continued by the Surgeon General of the Army, under the supervision of Colonel E. C. Jones, Surgeon, Fifth Service Command, at 74 East Gay Street, Columbus, Ohio. Physicians visiting the recruiting officers at that address will be able to submit to physical examination on the same day at Fort Hayes, headquarters of the Fifth Service Command.

There is no assurance that these facilities for accepting applications and commissioning medical officers will be continued indefinitely. In event the present arrangement is modified, applicants may have to file their applications, credentials, etc., with the Office of the Surgeon General, Washington, which will entail considerable delay and red tape.

Preliminary plans were laid by the Procurement and Assignment Committee on September 13 for meeting the vital problem of allocating and re-allocating physicians to meet the needs of various communities, industries and institutions for medical personnel due to population increases or losses of physicians to the Army or Navy.

The committee authorized Chairman Conard to send a communication and questionnaire to the proper officials of each county medical society in Ohio to obtain pertinent data on this question. The information relative to needs and shortages which may exist will be studied by members of the committee after which the committee will take concrete steps toward providing additional medical personnel if possible for areas where the need is apparent.

It was decided by the committee that this activity must be carried on in close cooperation

FILE YOUR NAME WITH THE OHIO PROCUREMENT AND ASSIGNMENT COMMITTEE IF YOU WILL TAKE AN ASSIGNMENT IN CIVILIAN PRACTICE, IN A WAR INDUSTRY, ETC, IN COMMUNITIES NEEDING MEDICAL PERSONNEL

ONE of the important functions of the Ohio Procurement and Assignment Committee for Physicians is to take concrete steps toward bringing about a voluntary re-distribution of the state's medical personnel to meet civilian needs during the war.

In other words, the committee feels obligated to put forth efforts to provide, in so far as feasible, physicians for communities where there may be a shortage of medical personnel, or where such shortages may develop in the future; for war industries, public health departments, hospitals and medical schools in event replacements or additional physicians are found necessary. The committee has pledged itself to co-operate with county medical societies and with officials of war industries, health departments, hospitals and medical schools in obtaining physicians suitable for civilian practice and for positions in the other fields just mentioned which must be filled.

Physicians who are not acceptable to the armed forces because of age or physical disabilities and who are willing to dislocate themselves from their present practices or positions for the duration should file their names with Dr. Robert Conard, chairman, Ohio Procurement and Assignment Committee for Physicians, 1005 Hartman Theater Building, Columbus, Ohio, at whose request this statement and request is being published by *The Journal.*

Those filing their name should submit information as to qualifications, training experience, medical background, military status and such personal data as they may care to present for analysis by the committee.

The committee is confident the civilian and other needs back home can be met on a voluntary basis providing physicians who remain at home will respond promptly and patriotically to the request of the committee either for additional work in their home communities or for services elsewhere where the need for additional physicians develops.

with county medical societies and officials of industries and institutions.

Realizing that it does not have the power to compel a physician to assume added responsibilities or to shift locations for the duration, but believing that it is the duty of physicians who remain at home to make sacrifices and to take on additional duties, the committee adopted the following resolution which in effect is a general appeal for cooperation on the part of the profession generally in efforts to solve replacement problems as a result of the war:

"Resolved, That it is the sense of the Ohio Procurement and Assignment Committee for Physicians that it is the duty and obligation of each physician licensed to practice medicine and surgery in Ohio who, because of age, physical disability, or other reasons, is not available for active military service, to offer his services and make himself available for extra duties in the field of civilian practice, industrial practice, public health work, medical teaching and such other professional activities which require trained medical personnel and for which he is qualified through training and experience. Moreover, that it is the sense of the committee that it will cooperate with organizations, agencies and institutions in need of medical personnel or replacements in obtaining such personnel and replacements for them, providing they will confer with the committee with respect to physicians who may be qualified for the particular positions or duties under consideration."

Pertinent to the steps which all institutions utilizing medical personnel must take to keep the number of younger staff men at a minimum is an editorial published in the September issue of Hospitals, official publication of the American Hospital Association, reading in part as follows:

"The Directing Board of the Procurement and Assignment Service of the War Manpower Commission has upon the recommendation of its Advisory Committee in Hospitals, approved procedures and criteria to be used by the hospitals in preparing the revised list of essential members of their Intern and Resident Staffs.

"The Directing Board of the Procurement and Assignment Service calls attention to the urgent need for young medical officers in our armed forces, and asks the hospitals to make voluntary reductions in their staffs, and for the fullest cooperation in the effort of the Procurement and Assignment Service to maintain the hospitals' minimum essential staff requirements.

"As difficult as this reduction will be no hospital administrator would by any act of his own, either of omission or commission, deprive the armed forces of a single medical officer on the ground that the young intern or resident is necessary to the hospital's continued good service when by making reasonable adjustments and reducing the number of the essential staff, the services of the young medical man could be spared.

"That adjustments can be made is easily possible, that they must be made if our armed forces are to have a sufficient number of medical officers—is definite. Voluntary action and willing cooperation upon the part of the hospitals will cause less confusion, if any, and minor disarrangement in their staff readjustment program.

"There are a number of hospitals, largely those of great bed capacity, in which the ratio of interns and residents to patients is far beyond a minimum essential ratio. The same applies to a considerable number of hospitals of smaller bed capacities. These hospitals could and should effect a decided readjustment of their staffs, and make the younger medical men available for commissions in the armed forces.

"Again, the use of those incapacitated by physical disability, and those beyond the age at which commissions are given, can and should be developed to a far larger extent that at present.

"The responsibility lies with the hospitals, but more particularly with the members of the hospital staffs who remain at home. By working together, moved by a patriotic desire to serve in whatever way they can best serve, and in closer cooperation with the Procurement and Assignment Service, the younger medical men can be released in an orderly progression, as their services are needed. Then both hospitals and the medical profession would be saved the impact of a suddenly increased demand for a large number of medical officers.

"Hospitals should not hoard their man power, nor their staff power, no more than they should hoard other things which they have long thought to be essential. Under the stress of our war effort they have found that they can make indicated readjustments and still maintain an acceptable hospital service.

"Hospitals have never failed in their cooperation with the Government's policies of winning the war. They will not fail in this emergency. The questionnaires will be duly accomplished and returned promptly. The reduction in the essential staff minimum will be made willingly."

NAMES OF OHIO PHYSICIANS WITH ARMED FORCES AS OF SEPTEMBER 23

OHIO physicians on active duty with the armed forces as of September 23, 1942, numbered 2,027, according to information received up to that time at the Headquarters Office of the Ohio State Medical Association.

Doubtless, some Ohio physicians have been commissioned and the information has not as yet been reported to the Columbus office. A card index is being maintained, showing each medical officer's rank, assignment and date of orders. The list which follows was compiled from these cards. No attempt has been made to publish the assignments of medical officers because of censorship regulations and the continuous changes in locations due to troop movements.

Any reader of *The Journal* who may notice an error in the list or the omission of the name of some physician who has been commissioned, should notify the State Headquarters Office, as every effort is being made to keep the file of Ohio medical officers up to date and accurate. Information as to changes in rank and news items about men in the service also will be appreciated.

Name	City	Rank
Abrahamson, Ira A.	Cincinnati	Lt. Col., U.S.A.
Abrams, Harold J.	Cleveland Hts.	Capt., U.S.A.
Abrams, Nathan R.	Cincinnati	Capt., U.S.A.
Abramson, D. I.	St. Bernard	Capt., U.S.A.
Adam, Alan B.	Cleveland	1st Lt., U.S.A.
Adams, Archibald M.	Lima	1st Lt., U.S.A.
Adelman, Jack A.	Columbus	Lt., U.S.N.
Adelman, Louis	Cleveland	Capt., U.S.A.
Adolph, Paul E.	Bellevue	Capt., U.S.A.
Akers, Robert H.	Columbus	1st Lt., U.S.A.
Albanese, Nicholas A.	Columbus	Col., U.S.A.
Albert, Irwin C.	Cincinnati	1st Lt., U.S.A.
Alberts, Edward	Cincinnati	Capt., U.S.A.
Alexander, Fred W.	Cleveland	Capt., U.S.A.
Alexander, J. A.	Cleveland	Capt., U.S.A.
Alexander, Stephen J.	Dayton	1st Lt., U.S.A.
Alison, John	Cleveland Heights	Capt., U.S.A.
Allen, Chester H.	Portsmouth	Major, U.S.A.
Allen, Horace E., Jr.	Toledo	1st Lt., U.S.A.
Allen, Samuel	East Liverpool	1st Lt., U.S.A.
Allenbach, Theodore C.	Worthington	Capt., U.S.A.
Allison, Robert T.	Akron	Major, U.S.A.
Althoff, Wm. R.	Dayton	Capt., U.S.A.
Altmaier, Clovis J.	Marion	1st Lt., U.S.A.
Ambrose, Wm. Harris	Greenfield	Lt. Col., U.S.A.
Ameter, Russell K.	Bryan	1st Lt., U.S.A.
Amstutz, Hubert M.	Lancaster	Capt., U.S.A.
Amstutz, Omar C.	Bellefontaine	Capt., U.S.A.
Anagnost, Basil D.	Toledo	1st Lt., U.S.A.
Anderson, C. A.	East Cleveland	1st Lt., U.S.A.
Anderson, H. H.	Cleveland	1st Lt., U.S.A.
Anderson, J. B.	Cleveland	Lt. Comdr., U.S.N.
Anderson, John G.	Lynchburg	Capt., U.S.A.
Andrews, Stanley B.	Toledo	1st Lt., U.S.A.
Andrus, Willard B.	Columbus	Capt., U.S.A.
Angerman, Walter	Wooster	1st Lt., U.S.A.
Angle, Robert O.	Mansfield	1st Lt., U.S.A.
Anker, Henry	Akron	Capt., U.S.A.
Anzinger, F. W.	Springfield	1st Lt., U.S.A.
Anzinger, Robert J.	Springfield	1st Lt., U.S.A.
Apanasewicz, Leo E.	Cleveland	1st Lt., U.S.A.
Apfelberg, H. J.	Chillicothe	1st Lt., U.S.A.
Apple, James D.	Dayton	1st Lt., U.S.A.
Archer, M. C.	Medina	Major, U.S.A.
Armstrong, Chas. Benj.	Cincinnati	1st Lt., U.S.A.
Armstrong, Harry G.	Dayton	Major U.S.A.
Arn, Roy D.	Dayton	Major, U.S.A.
Arnold, Emmet W.	Columbus	Capt., U.S.A.
Aronoff, Nathan	Leipsic	1st Lt., U.S.A.
Arthur, Robert D.	Springfield	Major, U.S.A.
Artman, Edwin H.	Chillicothe	1st Lt., U.S.A.
Ash, Edwin E.	Cincinnati	Capt., U.S.A.
Ashe, Wm. F., Jr.	Cincinnati	Capt., U.S.A.
Axelson, Oscar A.	Youngstown	Capt., U.S.A.
Axthelm, M. F.	Caledonia	1st Lt., U.S.A.
Ayers, Wm. B.	Dayton	1st Lt., U.S.A.
Babione, Robert W.	Luckey	Lt. Comdr., U.S.N.
Bahrenburg, James H.	Canton	Major, U.S.A.
Baker, Colvin L.	Cridersville	Capt., U.S.A.
Baker, P. H.	Columbus	1st Lt., U.S.A.
Bakos, John	Akron	Capt., U.S.A.
Ball, O. D.	New Lexington	Capt., U.S.A.
Ballard, Robert E.	Lakewood	1st Lt., U.S.A.

Name	City	Rank
Bane, Russell C.	Chillicothe	Capt., U.S.A.
Bannister, Wm. K.	Columbus	Lt., U.S.N.
Barber, C. F.	Felicity	Capt., U.S.A.
Barckman, Wm. H.	Cleveland	1st Lt., U.S.A.
Bard, Alfred K.	Cleveland	1st Lt., U.S.A.
Barker, Harold J.	Cleveland Hgts	Capt., U.S.A.
Barker, Myron	Lima	1st Lt., U.S.A.
Barnard, Wm. H.	Toledo	Capt., U.S.A.
Barnes, N. T.	Toledo	Capt., U.S.A.
Barnhiser, Von Bergen	Camden	Capt., U.S.A.
Barr, Harry R.	Cleveland	1st Lt., U.S.A.
Barr, J. O.	Cleveland	1st Lt., U.S.A.
Barth, Walter M.	Cleveland	1st Lt., U.S.A.
Bartlett, Robert M.	Akron	Capt., U.S.A.
Barton, Paul F.	Galion	1st Lt., U.S.A.
Bartos, Paul Victor	Columbus	1st Lt., U.S.A.
Bartunek, Robert B.	Shaker Heights	1st Lt., U.S.A.
Bartz, Walter Fredk.	Woodville	Capt., U.S.A.
Basinger, Norman E.	Elyria	Lt., U.S.N.
Basnett, Carl M.	Columbus	Capt., U.S.A.
Bassett, Garry G.	Cleveland	Capt., U.S.A.
Battles, M. L.	Chesterland	1st Lt., U.S.A.
Baube, John L.	Mt. Vernon	Capt., U.S.A.
Bauhof, N. F.	Canton	1st Lt., U.S.A.
Baurichter, F. Paul	Cincinnati	Lt., U.S.N.
Baurichter, Francis X.	Cincinnati	Capt., U.S.A.
Bavor, Herbert J.	Berea	1st Lt., U.S.A.
Bayless, Francis	Cleveland	Major, U.S.A.
Beach, Wilber E.	Middlepoint	Lt. Col., U.S.A.
Beale, Allen W.	Warren	Capt., U.S.A.
Beale, Charles C.	Mt. Sterling	Capt., U.S.A.
Bean, Wm. B.	Cincinnati	Capt., U.S.A.
Beasley, Norris M.	Athens	1st Lt., U.S.A.
Beasley, Wm. D.	Springfield	Capt., U.S.A.
Beck, Harry W.	Canton	Capt., U.S.A.
Beckerman, Samuel	Cleveland	1st Lt., U.S.A.
Beeman, H. O.	Port Clinton	Capt., U.S.A.
Beers, Geo. W.	Canton	1st Lt., U.S.A.
Beeson, Harold G.	Wooster	Capt., U.S.A.
Behm, Alton Wilson	Chardon	1st Lt., U.S.A.
Bein, Philmour M. A.	Mansfield	1st Lt., U.S.A.
Belinky, David A.	Youngstown	Capt., U.S.A.
Belinky, Nathan Donald	Youngstown	1st Lt., U.S.A.
Bell, Clarence H.	Mansfield	Capt., U.S.A.
Bell, James R.	Shaker Heights	Capt., U.S.A.
Bell, Jos. J.	Cincinnati	1st Lt., U.S.A.
Bell, Paul L.	Toledo	1st Lt., U.S.A.
Belmont, Morrison M.	Youngstown	Capt., U.S.A.
Benedetto, Eugene Rudolph	Alliance	1st Lt., U.S.A.
Benes, Franklin A.	Shaker Heights	1st Lt., U.S.A.
Benjamin, Julien E.	Cincinnati	Lt. Col., U.S.A.
Bennett, Paul E.	Cincinnati	1st Lt.. U.S.A.
Bennie, Wm. T.	Cleveland	Capt., U.S.A.
Beren, Irvin B.	Cincinnati	1st Lt., U.S.A.
Berg, Theodore	Elyria	1st Lt., U.S.A.
Berger, Irving L.	Cleveland Hts.	1st Lt., U.S.A.
Berger, Peary B.	Englewood	Capt., U.S.A.
Berkebile, Robert D.	Defiance	1st Lt., U.S.A.
Berkow, Abraham	Chillicothe	1st Lt., U.S.A.
Berlesky, Harry S.	Barberton	1st Lt., U.S.A.
Berlin, Fred P.	Wapakoneta	Capt., U.S.A.
Bernard, Cohn H.	Cleveland	Capt., U.S.A.
Berndt, Albert Louis	Portsmouth	Capt., U.S.A.
Berns, Charles	Cleveland	Major, U.S.A.
Berry, Clyde W.	Wapakoneta	Capt., U.S.A.
Berry, Jack J.	Cleveland	1st Lt., U.S.A.
Bershadsky, Solomon	Cincinnati	1st Lt., U.S.A.
Bershon, Albert L.	Toledo	Major, U.S.A.
Beshara, Edmund	Cleveland	1st Lt., U.S.A.
Best, Marshall M.	Xenia	Major, U.S.A.
Betts, Thomas	Findlay	1st Lt., U.S.A.
Beyer, M. C.	Akron	Capt., U.S.A.
Beynon, David E.	Girard	1st Lt., U.S.A.
Bill, Herbert E.	Cleveland	Major, U.S.A.
Bilton, J. L.	Clevland	Lt. (j.g.) U.S.N.
Binzer, Isadore Irving	Toledo	1st Lt., U.S.A.
Birkbeck, Norman J.	Dayton	Lt., U.S.N.
Bishko, Maurice J.	University Hgts	1st Lt., U.S.A.
Black, James A.	Silverton	1st Lt., U.S.A.
Black, Sam Haigler	Akron	Lt. Comdr., U.S.N.
Blackledge, Ord C.	Cleveland	1st Lt., U.S.A.
Blackstone, Paul Andrew	Bellville	Capt., U.S.A.
Blandford, S. E.	Cleveland	Capt., U.S.A.
Blanton, Gerald W.	Athens	1st Lt., U.S.A.
Blaugrund, Charles	Cleveland	Capt., U.S.A.
Binn, John C.	New Philadelphia	Major, U.S.A.
Bly, Frank H.	Akron	Capt., U.S.A.
Boehm, Lloyd A.	Toledo	Lt. (j.g.),U.S.N.
Boettner, John F.	Cleveland	Capt., U.S.A.
Bogue, Charles A.	Warren	1st Lt., U.S.A.
Boice, Robert R.	Pomeroy	Capt., U.S.A.
Bolotin, Jos. H.	Warren	1st Lt., U.S.A.
Bolton, Ralph D.	Canton	1st Lt., U.S.A.
Bolton, Wilbur M.	Cleveland	Major, U.S.A.
Bonar, L. D.	Mansfield	1st Lt., U.S.A.
Bone, J. R.	Cincinnati	1st Lt., U.S.A.
Bonnell, Geo. H.	Worthington	1st Lt., U.S.A.
Bonser, Wm. H.	Toledo	1st Lt., U.S.A.
Booth, E. J.	Newcomerstown	1st Lt., U.S.A.
Booth, Geo. T.	Toledo	1st Lt., U.S.A.
Borelli, J. F.	Hamilton	Capt., U.S.A.
Borer, R. J.	Toledo	Capt., U.S.A.
Borreson, Albert	Greenfield	Capt., U.S.A.
Bossard, Samuel LeRoy	Gallipolis	Major, U.S.A.
Bost, C. E.	Euclid	1st Lt., U.S.A.
Boucher, Howard E.	Columbus	Col., U.S.A.
Boukalik, Wm. F.	Cleveland	Capt., U.S.A.
Bowlen, J. J.	Akron	Major, U.S.A.
Bowman, H. H.	Canton	Capt., U.S.A.
Bowman, Harold J.	Canton	Capt., U.S.A.
Bowman, Robert E.	Cleveland	Major, U.S.A.
Bowsher, Robert E.	Toledo	1st Lt., U.S.A.
Boyer, Byron E.	Cincinnati	Major, U.S.A.
Boylan, Peter C.	Cleveland Hgts	Capt., U.S.A.
Braden, Spencer	Cleveland	Major, U.S.A.
Brady, Richard M.	Akron	1st Lt., U.S.A.
Brandaberry, N. A.	Springfield	Capt., U.S.A.
Brandmiller, Barclay M.	Youngstown	1st Lt., U.S.A.
Brandwan, Samuel R.	Shaker Heights	Capt., U.S.A.
Bratton, Paul C.	Sidney	Capt., U.S.A.
Braun, Emery J.	Akron	1st Lt., U.S.A.
Breckenridge, R. A.	Cuyahoga Falls	Capt., U.S.A.
Breitbart, Raymond	Middletown	1st Lt., U.S.A.
Bremen, Harry	Dayton	1st Lt., U.S.A.
Breuer, Alfred	Cleveland Hgts	Capt., U.S.A.
Brinker, Herbert Jos.	Cincinnati	Capt., U.S.A.
Briola, Patsie F.	Cleveland	Major, U.S.A.
Brody, Melvin	Canton	1st Lt., U.S.A.
Brogden, Wm. E.	Canton	Major, U.S.A.
Broh-Kahn, R. H.	Cincinnati	1st Lt., U.S.A.
Bronson, L. H.	Cleveland	Capt., U.S.A.
Brooks, L. H.	Cleveland	1st Lt., U.S.A.
Brooks, R. H.	Huntsville	1st Lt., U.S.A.
Brown, Arthur A.	Canal Fulton	Capt., U.S.A.
Brown, Charles G.	Mansfield	1st Lt., U.S.A.
Brown, David Van	Columbus	1st Lt., U.S.A.
Brown, Geo. W.	Youngstown	1st Lt., U.S.A.
Brown, Harold E.	Columbus	1st Lt., U.S.A.
Brown, Harry G.	Cincinnati	Capt., U.S.A.
Brown, John Edwin, Jr.	Columbus	Major, U.S.A.
Brown, J. Q.	Columbus	1st Lt., U.S.A.
Brown, L. Emmitt, Jr.	Akron	1st Lt., U.S.A.
Brown, Robert Henry	Cincinnati	1st Lt., U.S.A.
Brown, Russell N.	Centerville	1st Lt., U.S.A.
Brown, Walter J.	Conneaut	1st Lt., U.S.A.
Brown, Wayne E.	Clyde	1st Lt., U.S.A.
Brown, W. H.	Bowling Green	1st Lt., U.S.A.
Brown, Wilbur Max	Mansfield	Capt., U.S.A.
Brown, Willard C.	Warren	Capt., U.S.A.
Browne, K. B.	Whitehouse	1st Lt., U.S.A.
Brubaker, E. R.	Springfield	Lt. Comdr., U.S.N.
Brubaker, Wilbur K.	Elyria	Capt., U.S.A.
Bruce, Robert	Dayton	1st Lt., U.S.A.
Brugler, Guy	Cleveland	Major, U.S.A.
Brumbaugh, J. J.	Canton	Major, U.S.A.
Brumbaugh, Herbert L.	Dayton	Major, U.S.A.
Brumley, D. R.	Tiffin	Major, U.S.A.
Brumm, Lewis P.	Cincinnati	1st Lt., U.S.A.
Brunsting, Henry A.	Toledo	Capt., U.S.A.
Bryant, Richard D.	Cincinnati	Lt., U.S.N.
Bubna, Louis Edw.	Cleveland	1st Lt., U.S.A.
Buchanan, J. R.	Youngstown	Capt., U.S.A.
Buchanan, Richard L.	Cincinnati	1st Lt., U.S.A.
Buchman, Jos. A.	Cincinnati	1st Lt., U.S.A.
Buck, John F.	Toledo	Capt., U.S.A.
Buckley, C. J.	Cleveland	Lt. Comdr., U.S.N.
Buckner, Leslie M.	Cincinnati	Capt., U.S.A.
Bunin, Simon	Cleveland	Capt., U.S.A.
Burgess, Everett C.	Wooster	1st Lt., U.S.A.
Burgin, Bernard	Cincinnati	1st Lt., U.S.A.
Burgner, Earl W.	Akron	Capt., U.S.A.
Burkons, Harold F.	Shaker Heights	1st Lt., U.S.A.
Burns, John T.	Cincinnati	Capt., U.S.A.
Burnstine, Marcus D.	Columbus	Capt., U.S.A.
Burr, Neil M.	Cleveland	Capt., U.S.A.
Burroughs, Shepard A.	Ashtabula	Capt., U.S.A.
Burrows, J. W.	Erie Beach	1st Lt., U.S.A.
Burstein, Henry A.	Toledo	Capt., U.S.A.
Burstein, Theodore	Canton	Lt. Col. U.S.A.
Buskirk, Maurice D.	Huron	1st Lt., U.S.A.
Butcher, Wendell A.	Ironton	Lt. U.S.N.
Butner, Chas. O.	Shiloh	1st Lt., U.S.A.
Bynum, Frank L.	Cleveland	1st Lt., U.S.A.
Cafaro, Secondo Raymond	Youngstown	Capt., U.S.A.
CaJacob, Melville E.	Cincinnati	1st Lt., U.S.A.
Caldwell, H. E.	Delaware	Major, U.S.A.
Caldwell, Jas. S.	Cincinnati	Capt., U.S.A.
Calland, Wm. R.	Barberton	1st Lt., U.S.A.
Callander, Adelbert R.	Delaware	Major, U.S.A.
Calo, Frank J.	East Cleveland	1st Lt., U.S.A.
Cameron, James E.	Defiance	1st Lt., U.S.A.
Camp, Kenneth E.	Youngstown	1st Lt., U.S.A.
Campbell, George Warren	Columbus	1st Lt., U.S.A.
Campbell, Ivor McIvor	Akron	Flight Lt., Royal Canadian Air Force
Campbell, John A.	Akron	Lt. (j.g.), U.S.N.
Campbell, L. E.	Cleveland	1st Lt., U.S.A.
Campbell, S. J.	Bucyrus	1st Lt., U.S.A.
Campbell, Rundle D.	Mansfield	1st Lt., U.S.A.
Campion, Woodrow M.	Cleveland	1st Lt., U.S.A.
Cannava, Andrew W.	Cincinnati	Capt., U.S.A.

Name	City	Rank
Canter, Jos. M.	Akron	Capt., U.S.A.
Caravona, D. P.	Cleveland	1st Lt., U.S.A.
Carlisle, Richard C.	Columbus	Capt., U.S.A.
Carmichael, J. C.	Cleveland	1st Lt., U.S.A.
Carnes, J. N.	Gallipolis	1st Lt., U.S.A.
Carney, Wilfred I.	Youngstown	Capt., U.S.A.
Carson, Jas. H.	Martins Ferry	Capt., U.S.A.
Carter, Burr N.	Cincinnati	Lt. Col., U.S.A.
Carter, John Asa	Middletown	Capt., U.S.A.
Carter, Wm. H.	Cleveland	1st Lt., U.S.A.
Cassady, Chas. E.	Columbus	1st Lt., U.S.A.
Cassady, Louis P.	East Fultonham	Lt., U.S.N.
Cassidy, R. H.	Columbus	Lt., U.S.N.
Castle, Edward B.	Shaker Heights	Capt., U.S.A.
Castle, G. H.	Cincinnati	Lt. Comdr., U.S.N.
Catalano, Anthony C.	Cleveland	Capt., U.S.A.
Catalano, Frank A.	Cleveland	1st Lt., U.S.A.
Caton, Russell J.	Bucyrus	Lt. Col., U.S.A.
Cattell, James Paul	Steubenville	1st Lt., U.S.A.
Cava, Jasper F.	Mingo Junction	Capt., U.S.A.
Cavanaugh, Harold Norbert	Reading	Capt., U.S.A.
Cellio, Lewis W.	Carrollton	Major, U.S.A.
Chaikin, Wm. Earl	Cleveland	1st Lt., U.S.A.
Chalker, Everett M.	Youngstown	1st Lt., U.S.A.
Chalker, Harry E.	Girard	Capt., U.S.A.
Chamberlain, Webb P., Jr.	Cleveland	Capt., U.S.A.
Chamberlin, Clyde G.	Shaker Heights	1st Lt., U.S.A.
Chambers, David A.	Cleveland	Major, U.S.A.
Chapla, Albert Benj.	Lorain	1st Lt., U.S.A.
Chappel, Merwin R.	Athens	Capt., U.S.A.
Charvat, Thomas F.	Cleveland	Lt., U.S.N.
Chrenka, Paul	Cleveland	1st. Lt., U.S.A.
Chudde, S. C.	Dayton	1st Lt., U.S.A.
Clark, Clayton W.	Cleveland	1st Lt., U.S.A.
Clark, Geo. E., Jr.	Cleveland	1st Lt., U.S.A.
Clark, Wm. P.	Cincinnati	Capt., U.S.A.
Clarke, Francis J.	Cleveland Heights	Capt., U.S.A.
Clarke, George E.	Cincinnati	Major, U.S.A.
Clement, Frederick	Toledo	Major, U.S.A.
Clifford, R. V.	Girard	Lt., U.S.N.
Cline, Abe	Dayton	Lt. Comdr., U.S.N.
Clippinger, Conrad K.	Dayton	1st Lt., U.S.A.
Clodfelter, H. M.	Columbus	Lt. Comdr., U.S.N.
Coddington, Oscar L.	Columbus	Capt. U.S.A.
Coers, Burt N.	Circleville	1st Lt., U.S.A.
Coffin, Theodore A.	Painesville	Capt., U.S.A.
Cohen, Jacob	Steubenville	1st Lt., U.S.A.
Cohen, Sander	Cincinnati	Capt., U.S.A.
Cole, Allan A.	Logan	Capt., U.S.A.
Cole, Harold Newton, Jr.	Shaker Heights	1st Lt., U.S.A.
Coleman, Marion	Dayton	Lt. Comdr., U.S.N.
Colla, Jos.	Youngstown	Capt., U.S.A.
Collette, Elmon	Cleveland	Capt., U.S.A.
Collins, James Robert	Cleveland	Capt., U.S.A.
Colombi, Christopher A.	Lyndhurst	1st Lt., U.S.A.
Colvin, Joseph W.	Cincinnati	Lt., U.S.N.
Compton, Wm. C.	Cincinnati	Major, U.S.A.
Conaway, E. E.	Cambridge	1st Lt., U.S.A.
Conn, Harry G.	Toledo	Major, U.S.A.
Consolo, Chas. W.	Tiffin	1st Lt., U.S.A.
Cook, John M.	Cleveland	1st Lt., U.S.A.
Cook, M. O.	Hamilton	Major, U.S.A.
Cook, Robert Gibson	Cincinnati	1st Lt., U.S.A.
Cooke, Robert E.	Harrison	1st Lt., U.S.A.
Coombs, Fredk. S.	Youngstown	Capt., U.S.A.
Cooper, Maurice P.	Toledo	Capt., U.S.A.
Couch, Cleon C.	Cleveland	1st Lt., U.S.A.
Counts, Richard L.	Chillicothe	1st Lt., U.S.A.
Cowan, A. M.	Maple Heights	Major, U.S.A.
Cowdery, K. H.	Huron	1st Lt., U.S.A.
Cox, Ralph L.	Cleveland	Major, U.S.A.
Craddock, William H.	Cincinnati	Major, U.S.A.
Cramer, Chester O.	Columbus	Capt., U.S.A.
Cramer, Irving I.	Cleveland	1st Lt., U.S.A.
Cranston, Clyde J.	Wakeman	Major, U.S.A.
Craw, Bernard.	Toledo	1st Lt., U.S.A.
Crawford, M. E.	Cleveland	1st Lt., U.S.A.
Crawford, Robert R.	Mansfield	Lt., U.S.N.
Creamer, David Myers	Bellaire	1st Lt., U.S.A.
Cremer, Albert Eden	Lima	1st Lt., U.S.A.
Cress, O. E.	Van Wert	1st Lt., U.S.A.
Crile, Geo. W., Jr.	Cleveland	Lt., U.S.N.
Crist, J. O.	Centerburg	Major, U.S.A.
Crocker, David	Cleveland	1st Lt., U.S.A.
Crone, John T., Jr.	Milford	Capt., U.S.A.
Crone, Paul Clifford	Cleveland	Capt., U.S.A.
Cronick, Chas. H.	Youngstown	1st Lt., U.S.A.
Cronin, John F.	Cincinnati	Capt., U.S.A.
Crosby, Harold O.	Findlay	Capt., U.S.A.
Crouch, Corbin L.	Akron	1st Lt., U.S.A.
Crow, Morton J.	Warren	1st Lt., U.S.A.
Crum, Louis J.	Cincinnati	1st Lt., U.S.A.
Crumley, Harold M.	Chillicothe	Major, U.S.A.
Cukerbaum, Alfred R.	Youngstown	Lt., U.S.N.
Culler, Arthur M.	Dayton	Lt. Comdr., U.S.N.
Cumming, Robert	Akron	Capt., U.S.A.
Cunningham, Ralph Burbank	Cincinnati	1st Lt., U.S.A.
Cunningham, Thos. R.	Fremont	Lt., U.S.N.
Cunningham, Walter A.	Steubenville	Capt., U.S.A.
Curran, Thomas R.	Columbus	1st Lt., U.S.A.
Curtis, Geo. H.	Cleveland	1st Lt. U.S.A.

Name	City	Rank
Curtiss, E. J.	Lima	Lt. Col., U.S.A.
Curtzwiler, Francis C.	Toledo	Capt., U.S.A.
Cushing, E. H.	Cleveland	Commdr., U.S.N.
Czarnecki, Casimir	Toledo	Major, U.S.A.
Czarnecki, John	Toledo	Lt. Comdr., U.S.N.
D'Amore, Amanto Primo	Masury	Capt., U.S.A.
Damerow, Wesley P.	Cincinnati	Capt., U.S.A.
Damstra, E. F.	Dayton	Capt., U.S.A.
Danahy, John C.	Cincinnati	Lt. Comdr., U.S.N.
Danchik, S. A.	Columbus	1st Lt., U.S.A.
Daus, Homer J.	Cleveland	1st Lt., U.S.A.
Davidow, Sidney L.	North Jackson	1st Lt., U.S.A.
Davies, Drew L.	Columbus	Lt. Comdr., U.S.N.
Davin, W. A.	Hamilton	Capt., U.S.A.
Davis, Alexander N.	Dayton	Capt., U.S.A.
Davis, Daniel	Toledo	1st Lt., U.S.A.
Davis, Edward J.	North Canton	1st Lt., U.S.A.
DeBold, J. A.	Wilmington	1st Lt., U.S.A.
DeCicco, Gabriel E.	Youngstown	1st Lt., U.S.A.
Decker, Martin	Middletown	1st Lt., U.S.A.
Deger, Robert J.	Dayton	1st Lt., U.S.A.
Deishley, Chas. Jos.	Columbus	1st Lt., U.S.A.
Deitchman, L. S.	Youngstown	Major, U.S.A.
Del Vecchio, James John	Yorkville	Capt., U.S.A.
DeMarco, Anthony R.	Cleveland	1st Lt., U.S.A.
DeMeter, Steven R.	Cleveland	1st Lt., U.S.A.
Denning, Francis J.	Steubenville	1st Lt., U.S.A.
Dennis, Gerald H.	Dayton	Capt., U.S.A.
Denny, Wm. L.	Cambridge	Capt., U.S.A.
DeOreo, Gerard A.	Cleveland Hgts	1st Lt., U.S.A.
Devanney, John W.	Cincinnati	1st Lt., U.S.A.
Devins, Edw. J.	Cincinnati	1st Lt., U.S.A.
DeWeese, Marion S.	Kent	Capt., U.S.A.
DeWitt, Robert M.	Akron	1st Lt., U.S.A.
Dickey, Lincoln C.	Shaker Heights	1st Lt., U.S.A.
Dickson, R. D.	Gibsonburg	1st Lt., U.S.A.
Dillahunt, David G.	Columbus	1st Lt., U.S.A.
Dinardo, C. J.	Shaker Heights	Lt., U.S.N.
Disbro, Proctor	Cleveland	Lt., U.S.N.
Ditch, Gerald E.	Caldwell	Capt., U.S.A.
Dix, Carr E.	Columbus	Capt., U.S.A.
Dixon, James G.	Cincinnati	1st Lt., U.S.A.
Dobkin, Arthur	Akron	Major, U.S.A.
Dobkin, J. J.	Toledo	1st Lt., U.S.A.
Docter, Luebert	Genoa	1st Lt., U.S.A.
Doeing, Carl T.	Springfield	Capt., U.S.A.
Doering, John Ward	Logan	Capt., U.S.A.
Doernberg, Robert J.	Spencerville	1st Lt., U.S.A.
Dole, John A.	Ironton	Capt., U.S.A.
Domalski, Florian A.	Toledo	Capt., U.S.A.
Donath, Stephen	Toledo	1st Lt., U.S.A.
Donley, Robert Francis	Columbus	Capt., U.S.A.
Donnelly, James H.	Cleveland	1st Lt., U.S.A.
Doran, Joseph Kannaly	Cleveland	Capt., U.S.A.
Doran, Patric C.	Akron	Major, U.S.A.
Dorr, Hugh C.	Columbus	Capt., U.S.A.
Dorroh, Glenn U.	Cincinnati	Major, U.S.A.
Doster, G. L.	Paulding	Capt., U.S.A.
Dougherty, C. M.	New Philadelphia	Major, U.S.A.
Dougherty, John Edwin	Canton	Capt., U.S.A.
Dowling, James R.	Massillon	Capt., U.S.A.
Downey, Frank S.	Sidney	Capt., U.S.A.
Downing, John S.	Akron	1st Lt., U.S.A.
Drake, John C.	Mt. Vernon	Major, U.S.A.
Drolett, Donald J.	Cincinnati	1st Lt., U.S.A.
Drown, W. G.	Warren	Capt., U.S.A.
Dugan, David J.	Lakewood	1st Lt., U.S.A.
Dummer, Clyde	Cincinnati	Capt., U.S.A.
Duncan, Chas. H.	Cincinnati	Lt. (j.g.) U.S.N.
Duncan, W. S.	Cleveland Heights	Major, U.S.A.
Dunham, Marshall B.	Dayton	1st Lt., U.S.A.
Dunn, David Dennis	Cleveland	1st Lt., U.S.A.
Durschlag, Sidney W.	East Cleveland	1st Lt., U.S.A.
Dutrow, Howard V.	Dayton	Major, U.S.A.
Dutton, Arthur S.	Put-In-Bay	Capt., U.S.A.
Dworkin, Harry	Cincinnati	1st Lt., U.S.A.
Eastman, Robert L.	Mt. Vernon	Major, U.S.A.
Eberle, Wm. Harrison	Ashtabula	1st Lt., U.S.A.
Eckel, Harold W.	Cincinnati	1st Lt., U.S.A.
Eckstein, Richard Waldo	Cleveland	1st Lt., U.S.A.
Eddy, Howard C.	Cleveland	Lt. Col., U.S.A.
Edel, Chas. H.	Ashtabula	Major, U.S.A.
Edelstein, Joseph B.	Toledo	Capt., U.S.A.
Edmonds, K. T.	West Alexandria	1st Lt., U.S.A.
Edwards, Chas. W.	Columbus	Capt., U.S.A.
Edwards, Thomas L.	Mt. Vernon	1st Lt., U.S.A.
Edwards, Thomas M.	Cincinnati	Capt., U.S.A.
Egeberg, Roger O.	Cleveland	Major, U.S.A.
Egli, Edwin B.	Lisbon	Capt., U.S.A.
Egolf, Chas. Foster	Cincinnati	Capt., U.S.A.
Eichhorn, John P.	Cleveland	1st Lt., U.S.A.
Eisenberg, Samuel H.	Akron	Capt., U.S.A.
Eiser, Joseph	Toledo	1st Lt., U.S.A.
Eisner, David G.	Cleveland	Capt., U.S.A.
Elkins, Chas. W.	Cleveland	Capt., U.S.A.
Ellery, James A.	Shelby	1st Lt., U.S.A.
Elliott, C. B.	Painesville	Lt. Comdr., U.S.N.
Elliott, Harold B.	Springfield	Capt., U.S.A.
Elliott, Wm. E.	Alliance	Capt., U.S.A.

Name	City	Rank
Elliott, Wm. S.	East Palestine	Capt., U.S.A.
Ellis, Samuel C.	Xenia	Capt., U.S.A.
Elsey, Edward C.	Cincinnati	Major, U.S.A.
Emery, Geo. Myers	Ashland	Capt., U.S.A.
Emick, Glenn O.	Columbus	Major, U.S.A.
Emslie, Robert J.	Elyria	Capt., U.S.A.
Engel, Walter G.	Cincinnati	Capt., U.S.A.
Engel, Wm. J.	Cleveland	Lt. Comdr., U.S.N.
Engelman, Elmer D.	Chillicothe	1st Lt., U.S.A.
Englander, Howard H.	East Cleveland	1st Lt., U.S.A.
English, Robert J.	Toledo	1st Lt., U.S.A.
Enright, Wm. M.	Barberton	Lt., U.S.N.
Ensign, Paul R.	Toledo	Col., U.S.A.
Epler, Deane Chandler	Columbus	Capt., U.S.A.
Epstein, Francis W.	Toledo	1st Lt., U.S.A.
Epstein, Harold C.	Cleveland Heights	1st Lt., U.S.A.
Epstein, Isadore S.	Cleveland	1st Lt., U.S.A.
Epstein, Samuel	Struthers	Capt., U.S.A.
Erb, A. W.	Piqua	1st Lt., U.S.A.
Ernstene, A. Carlton	Cleveland	Lt. Comdr., U.S.N.
Ersay, Emil F.	Cleveland	Capt., U.S.A.
Evans, George L.	Mansfield	1st Lt., U.S.A.
Evans, Harrison S.	Columbus	Capt., U.S.A.
Everett, Clyde W.	Cleveland	Capt., U.S.A.
Extejt, Andrew J.	Toledo	1st Lt., U.S.A.
Fakehany, J. P.	Toledo	Lt., U.S.N.
Falk, John H.	Cincinnati	1st Lt., U.S.A.
Falke, T. W.	Dayton	1st Lt., U.S.A.
Falor, Wm. H.	Akron	1st Lt., U.S.A.
Fancher, Paul S.	Delaware	Major, U.S.A.
Fanelli, Walter	Cleveland	Capt., U.S.A.
Fargo, Warren Conrad	Cleveland	Col., U.S.A.
Farmer, Howard	Fletcher	1st Lt., U.S.A.
Fasoldt, Laurence Otto	Glendale	Capt., U.S.A.
Fath, August F.	Cincinnati	Capt., U.S.A.
Fatum, Oscar J.	Van Wert	Capt., U.S.A.
Faue, Clarence G.	Newark	Capt., U.S.A.
Faul, Wm. L.	Georgetown	Capt., U.S.A.
Fawcett, J. T.	Elyria	Major, U.S.A.
Fee, Charles H.	Columbus	Capt., U.S.A.
Feistkorn, Karl H.	Marion	Capt., U.S.A.
Feldman, Stanley L.	Cleveland	1st Lt., U.S.A.
Felker, C. L.	Toledo	1st Lt., U.S.A.
Felson, Henry	Cincinnati	Capt., U.S.A.
Felson, Walter	Greenfield	1st Lt., U.S.A.
Feltes, E. J.	Cleveland	1st Lt., U.S.A.
Fergus, Jos. A.	St. Paris	1st Lt., U.S.A.
Ferguson, Edward Egner	Cleveland	Capt., U.S.A.
Ferraro, Wm. R.	Canton	Capt., U.S.A.
Fidelholtz, J. N.	Toledo	1st Lt., U.S.A.
Fierst, Sidney Morel	Cincinnati	1st Lt., U.S.A.
Fine, Archie	Cincinnati	Capt., U.S.A.
Fink, A. A.	Toledo	1st Lt., U.S.A.
Fink, Joseph J.	Cleveland	Capt., U.S.A.
Fink, Myron	Toledo	1st Lt., U.S.A.
Finkelmeier, Louis J.	Cincinnati	1st Lt., U.S.A.
Finnical, R. N.	Cadiz	Lt. (j.g.), U.S.N.
Firestone, B. I.	Youngstown	1st Lt., U.S.A.
Fish, John Spencer	Cleveland Hgts	1st Lt., U.S.A.
Fisher, Abe Alvin	Canton	Capt., U.S.A.
Fisher, Alexander S.	East Liverpool	1st Lt., U.S.A.
Fisher, Jerome	Columbus	1st Lt., U.S.A.
Fisher, John A.	Cincinnati	Major, U.S.A.
Fishman, Melvin B.	Cincinnati	1st Lt., U.S.A.
Fitzsimmons, R. J.	Columbus	1st Lt., U.S.A.
Fleming, John G.	Cincinnati	Lt., U.S.N.
Floridis, Gregory G.	Dayton	Capt., U.S.A.
Foley, J. M.	Columbus	Capt., U.S.A.
Foley, N. K.	Perrysburg	Major, U.S.A.
Folger, G. Keith	Cleveland	Major, U.S.A.
Folin, John Joseph	Barberton	Capt., U.S.A.
Ford, Sylvester C.	Cleveland	1st Lt., U.S.A.
Forman, Wiley L.	Columbus	Capt., U.S.A.
Forrester, C. R.	Toledo	Lt., U.S.N.
Forrester, Jos. Chas.	Columbus	1st Lt., U.S.A.
Forteza, Rosendo, Jr.	Columbus	Capt., U.S.A.
Forward, Donald D.	Ashtabula	Capt., U.S.A.
Fowler, Evan C.	Sebring	1st Lt., U.S.A.
Fowler, M. N.	Mansfield	Capt., U.S.A.
Fox, Dale E.	Covington	Capt., U.S.A.
Fox, Thomas Edward.	Columbus	1st Lt., U.S.A.
Fox, Wm. L.	Cleveland	Col., U.S.A.
Foy, Paul E.	Troy	1st Lt., U.S.A.
Francis, Carl C.	Cleveland	Capt., U.S.A.
Frank, Albert E.	Youngstown	1st Lt., U.S.A.
Frank, Herbert	Ravenna	1st Lt., U.S.A.
Franke, Wm. J.	Akron	1st Lt., U.S.A.
Frankle, H. P.	Lima	1st Lt., U.S.A.
Franz, Lyle C.	Ripley	1st Lt., U.S.A.
Frederick, Lewis Oliver	Osborn	1st Lt., U.S.A.
Frederick, Victor R.	Urbana	1st Lt., U.S.A.
Freed, Alexander N.	Shaker Heights	Capt., U.S.A.
Freedman, Eugene	Cleveland	Major, U.S.A.
Freedman, Mark A.	Columbus	Capt., U.S.A.
Freeman, Hal E.	Cleveland	Capt., U.S.A.
Freeman, Marvin S.	Lakewood	1st Lt., U.S.A.
Freiden, Jos. N.	Norwood	1st Lt., U.S.A.
Freilich, Myron Abraham	Zanesville	1st Lt., U.S.A.
Frick, David C.	Toledo	Capt., U.S.A.
Fridline, G. D.	Ashland	Capt., U.S.A.

Name	City	Rank
Friedman, David L.	Toledo	1st Lt., U.S.A.
Friedman, Leo S.	Cincinnati	Capt., U.S.A.
Friedman, Milton I.	Akron	Capt., U.S.A.
Friedmar, Sam	Toledo	1st Lt., U.S.A.
Fritz, W. A.	Wooster	Major, U.S.A.
Fronek, O. J.	Cleveland Heights	Lt., U.S.N.
Frush, Riley E.	Lexington	1st Lt., U.S.A.
Fry, Francis O.	Cleveland	Lt. (j.g.), U.S.N.
Frye, C. Mc.	Newark	Capt., U.S.A.
Fulton, Stewart	Cleveland	1st Lt., U.S.A.
Furste, Wesley L.	Columbus	1st Lt., U.S.A.
Fusco, Patrick J.	Warren	Capt. U.S.A.
Galbreath, Walter F.	Findlay	Capt., U.S.A.
Galinson, Sim Harry	Dayton	1st Lt., U.S.A.
Gall, Edward A.	Cincinnati	Capt., U.S.A.
Gallagher, John E.	Rossford	1st Lt., U.S.A.
Gallen, John	Columbus	Capt., U.S.A.
Gambrel, Francis John	Youngstown	1st Lt., U.S.A.
Garcia, Chas. T.	Cleveland	1st Lt., U.S.A.
Gardner, J. Stanley	Cleveland	Lt. Comdr., U.S.N.
Gardner, W. James	Cleveland	Lt. Comdr., U.S.N.
Garrett, Wm. M.	Frankfort	1st Lt., U.S.A.
Garvin, Edward R.	Toledo	Lt. Comdr., U.S.N.
Garvin, Gilbert E.	Blanchester	Capt., U.S.A.
Gates, S. E.	Conneaut	1st Lt., U.S.A.
Gavan, John Patrick	Cleveland	Capt., U.S.A.
Gavin, James A.	East Cleveland	1st Lt., U.S.A.
Gaynon, Irwin E.	Cincinnati	1st Lt., U.S.A.
Gebauer, Paul W.	Cleveland	Capt., U.S.A.
Geer, J. G. Paul	Wauseon	Lt., U.S.N.
Geiser, Edward J.	Cheviot	1st Lt., U.S.A.
Geiss, Ferdinand V.	Cleveland	1st Lt., U.S.A.
Gendelman, Samuel	Manchester	1st Lt., U.S.A.
Gerlinger, Theodore V.	Willard	1st Lt., U.S.A.
Gernon, William	Cleveland	Capt., U.S.A.
Gerson, S. K.	Lancaster	Capt., U.S.A.
Gettman, Robert L.	Marion	1st Lt., U.S.A.
Gettrost, Jos. M.	Columbus	Capt., U.S.A.
Giannestras, N. J.	Cincinnati	Capt., U.S.A.
Gibbons, John Tipton	Celina	Capt., U.S.A.
Giber, Philip B.	Girard	Major, U.S.A.
Gibson, Henry H.	Akron	1st Lt., U.S.A.
Gibson, James K.	Tiltonville	Capt., U.S.A.
Gignac, Ralph D.	Dayton	1st Lt., U.S.A.
Gilbert, Harold Raymond	Cleveland	1st Lt., U.S.A.
Gilbert, Norton H.	Cleveland Hgts	Capt., U.S.A.
Gilford, Jack	Cleveland Hgts	Capt., U.S.A.
Gillen, John L.	Canton	Capt., U.S.A.
Gillespie, Benjamin S.	Tacoma (Belmont)	1st Lt., U.S.A.
Gillespie, Byron	Woodsfield	Capt., U.S.A.
Gillespie, Emerson	Canton	Major, U.S.A.
Ginn, Guy Augustus	Springfield	Capt., U.S.A.
Ginsburg, Matthew	Toledo	Capt., U.S.A.
Girser, Edw. J.	Cheviot	1st Lt., U.S.A.
Glazier, McCleery	Cleveland	Lt.. U.S.N.
Gledhill, Jos. M.	Warren	1st Lt., U.S.A.
Glenn, Paul M.	Cleveland	Capt., U.S.A.
Glicklich, Earl A.	Cincinnati	1st Lt., U.S.A.
Glicksberg, E. L.	Cleveland	1st Lt., U.S.A.
Glomb, Albert M.	Cleveland	Lt., U.S.N.
Glover, Donald M.	Cleveland	Major, U.S.A.
Goetz, John P.	Akron	Capt., U.S.A.
Goff, Sylvanus Wm.	Akron	1st Lt., U.S.A.
Goldberg, Morris	Columbus	1st Lt., U.S.A.
Goldberg, Samuel D.	Youngstown	Major, U.S.A.
Goldblatt, Samuel,	Cincinnati	Major, U.S.A.
Goldcamp, John Stephen	Youngstown	Capt., U.S.A.
Golden, Abraham A.	Akron	1st Lt., U.S.A.
Goldin, Ralph R.	Lima	1st Lt., U.S.A.
Goldfarb, Bernard J.	Cleveland	Capt., U.S.A.
Goldstein, Marvin B.	Youngstown	Lt. Comdr., U.S.N.
Goler, Harold K.	Cleveland	Major, U.S.A.
Good, Roland H.	Van Wert	Capt., U.S.A.
Goodman, David	Cleveland	1st Lt., U.S.A.
Goodman, Joe Irving	Shaker Heights	Capt., U.S.A.
Goodman, Julien M.	Cleveland	Capt., U.S.A.
Goodman, Lawrence H.	Findlay	Capt., U.S.A.
Goodman, Milton L.	Columbus	1st Lt., U.S.A.
Goodman, Sander	Cincinnati	Capt., U.S.A.
Goodman, Seaburt	Cleveland	1st Lt., U.S.A.
Goodman, Wm. E.	Warren	1st Lt., U.S.A.
Gordon, Everett J.	Cincinnati	Capt., U.S.A.
Gordon, Maurice B.	Cleveland	Capt., U.S.A.
Gordon, Nathan Gold	Akron	1st Lt., U.S.A.
Gordon, Wm. T.	Cincinnati	1st Lt., U.S.A.
Gotwald, David K.	Springfield	Capt., U.S.A.
Gould, James A.	Dayton	Lt. Col., U.S.A.
Gould, J. I.	Toledo	Major, U.S.A.
Goulder, Norman E.	Cleveland Heights	1st Lt., U.S.A.
Graf, Douglas P.	Cincinnati	1st Lt., U.S.A.
Graham, Paul J.	Cincinnati	Capt., U.S.A.
Graller, David L.	Cincinnati	Capt., U.S.A.
Grau, Harry R.	Cleveland	Capt., U.S.A.
Gravis, J. B.	Columbus	Capt., U.S.A.
Gray, R. E.	Cleveland	1st Lt., U.S.A.
Green, Norbert S.	Cleveland	Capt., U.S.A.
Green, W. W.	Toledo	Capt., U.S.A.
Greenberg, David	Steubenville	Major, U.S.A.
Greenberg, Marcel	Cleveland	Capt., U.S.A.
Greenberger, Maurice L.	Canton	1st Lt., U.S.A.

Name	City	Rank
Greenburg, Samuel Lester	Steubenville	1st Lt., U.S.A.
Greenfield, Jack	Cleveland	1st Lt., U.S.A.
Greenlee, Arthur A.	Dennison	1st Lt., U.S.A.
Greentree, Leonard B.	Nelsonville	1st Lt., U.S.A.
Gregg, Walter K.	Dayton	Major, U.S.A.
Gregor, David H.	Columbus	1st Lt., U.S.A.
Gressle, Geo. A.	Newark	Capt., U.S.A.
Gribbin, Edward A.	Toledo	Capt., U.S.A.
Grigsby, Robert E.	Cincinnati	Capt., U.S.A.
Grise, Francis V.	Dayton	Capt., U.S.A.
Grogan, Francis Robert	Urbana	1st Lt., U.S.A.
Grollman, Aaron	Cincinnati	Lt. Comdr., U.S.N.
Grollman, Jaye J.	Cincinnati	1st Lt., U.S.A.
Groom, Horace E.	Akron	Lt. Col., U.S.A.
Gross, Harold T.	Columbus	Lt. (j.g.) U.S.N.
Gross, Joseph	Cleveland	Capt., U.S.A.
Gross, Theodore Anthony	Cleveland	1st Lt., U.S.A.
Grossman, Royal Geo.	Lakewood	Lt. Col., U.S.A.
Grothjan, Cletus A.	Toledo	Major, U.S.A.
Grove, Paul C.	Newark	Capt., U.S.A.
Grove, Paul Dewey	Cincinnati	Capt., U.S.A.
Guarnieri, Frank G.	Warren	1st Lt., U.S.A.
Guilford, F. R.	Columbus	1st Lt., U.S.A.
Gulmi, Peter F.	Cleveland	Capt., U.S.A.
Gunn, H. M.	Ashland	Major, U.S.A.
Gustafson, Milton Henry	Cleveland	1st Lt., U.S.A.
Guthrie, Morris B.	Columbus	Capt., U.S.A.
Haas Leonard J.	Cleveland	1st Lt., U.S.A.
Haas, Max	Cincinnati	1st Lt., U.S.A.
Haas, Richard L.	Dayton	1st Lt., U.S.A.
Hafkenschiel, Jos. H.	Youngstown	1st Lt., U.S.A.
Hagen, John S.	Cincinnati	1st Lt., U.S.A.
Hagen, Spencer	Cincinnati	Capt., U.S.A.
Hahn, Carl W.	Cleveland	Capt., U.S.A.
Hahn, Geo. W.	Lakewood	1st Lt., U.S.A.
Hahn, Paul D.	Warsaw	1st Lt., U.S.A.
Haines, J. W.	Cleveland	1st Lt., U.S.A.
Halfhill, James W., Jr.	Lima	Capt., U.S.A.
Hall, Augustus A.	Columbus	Major, U.S.A.
Hall, Raymond A.	Youngstown	Capt., U.S.A.
Haller, Harry A.	Cleveland	Lt., U.S.N.
Halley, John	Vermillion	1st Lt., U.S.A.
Halloran, William W.	Cleveland	Major, U.S.A.
Hamann, Carl A.	Cleveland	Capt., U.S.A.
Hamilton, Frank E.	Columbus	Capt., U.S.A.
Hamilton, Gerald W.	Akron	Capt., U.S.A.
Hamilton, I. B.	Canton	Major, U.S.A.
Hamilton, John M.	Cleveland	Capt., U.S.A.
Hamilton, Joseph W.	Akron	1st Lt., U.S.A.
Hamilton, Lester A.	Athens	1st Lt., U.S.A.
Hamilton, Paul V.	Cincinnati	Major, U.S.A.
Hamilton, Wm. S.	Norwood	1st Lt., U.S.A.
Hamman, R. H.	Waterville	1st Lt., U.S.A.
Hammersley, E. R.	Tuscarawas	Lt., U.S.N.
Hamsher, John F.	St. Paris	Major, U.S.A.
Hanger, Irwin C.	Cleveland	Major, U.S.A.
Hankinson, D. O.	Columbus	Capt., U.S.A.
Hanna, Myron	Findlay	Lt. Col., U.S.A.
Hannan, John R.	Cleveland	1st Lt., U.S.A.
Hanover, K. G.	Lima	Capt., U.S.A.
Hansen, Paul G.	Warrensville	Major, U.S.A.
Hanson, Kenneth B.	Cincinnati	Capt., U.S.A.
Hantman, Meyer	Cleveland	Major, U.S.A.
Hantman, Samuel	Cleveland	Capt., U.S.A.
Hapke, Fred B.	Troy	1st Lt., U.S.A.
Harder, Frank K.	Cincinnati	Capt., U.S.A.
Hardesty, H. H.	Cleveland	1st Lt., U.S.A.
Hardgrove, George L.	Doylestown	Capt., U.S.A.
Harding, John	Cincinnati	Capt., U.S.A.
Hardman, Edw. Francis	Youngstown	1st Lt., U.S.A.
Hargett, Edgar Reese	Springfield	1st Lt., U.S.A.
Hargrave, Dudley W.	Cincinnati	1st Lt., U.S.A.
Harkey, J. M.	Canton	Capt., U.S.A.
Harmon, H. E.	Chillicothe	Lt. Col., U.S.A.
Harner, Ronald M.	Canton	1st Lt., U.S.A.
Harper, E. O.	Cleveland	Major, U.S.A.
Harris, Frank H.	Martins Ferry	Capt., U.S.A.
Harris, Henry C.	Dayton	Major, U.S.A.
Harris, William B.	Columbus	1st Lt., U.S.A.
Harrison, Francis Regis	East Liverpool	Capt., U.S.A.
Harsha, James M.	Washington C. H.	Capt., U.S.A.
Hart, James R.	Cleveland	1st Lt., U.S.A.
Hartman, Jerome	Dayton	Lt. Comdr., U.S.N.
Hartzler, Adrian Jos.	Wooster	1st Lt., U.S.A.
Harvey, Arch Dunham	Lebanon	1st Lt., U.S.A.
Haskin, Grace	Cleveland	British Emergency Med. Service
Hatcher, E. R.	Columbus	Capt., U.S.A.
Hathhorn, H. E.	Youngstown	Capt., U.S.A.
Hattenbach, J. F.	Cleveland	1st Lt., U.S.A.
Haubrich, Robert C.	Pataskala	1st Lt., U.S.A.
Haufrecht, Fred	Cleveland Heights	1st Lt., U.S.A.
Hauman, H. L,	Toledo	Capt., U.S.A.
Hauser, Charles U.	Cincinnati	Capt., U.S.A.
Hauser, John W.	Cincinnati	1st Lt., U.S.A.
Hauser, Willard E.	Cleveland	Capt., U.S.A.
Hauss, John F.	Celina	1st Lt., U.S.A.
Hautzenroeder, Leonard A.	Mansfield	Capt., U.S.A.
Hawk, Alpha F.	Urbana	Capt., U.S.A.
Hawk, Otto Levi	East Cleveland	Capt., U.S.A.
Hawkins, Benj. L.	Cincinnati	1st Lt., U.S.A.
Hawley, Sherman R.	Toledo	Major, U.S.A.
Hawver, Kenneth G.	Lima	Capt., U.S.A.
Haydon, Geo. Blande	Cincinnati	1st Lt., U.S.A.
Hayes, Thomas M.	Springfield	1st Lt., U.S.A.
Hayman, Joseph M.	Cleveland	Lt. Col., U.S.A.
Haynie, Harold C.	Toledo	1st Lt., U.S.A.
Hazel, Woodrow S.	Youngstown	1st Lt., U.S.A.
Hedges, Jasper M.	Columbus	1st Lt., U.S.A.
Hedlund, G. O.	Painesville	Lt. Comdr., U.S.N.
Heery, Ralph	Cincinnati	1st Lt., U.S.A.
Heller, Morris I.	Cleveland	Capt., U.S.A.
Hellwig, Edward Franz	Cleveland	1st Lt., U.S.A.
Helm, Albert Joseph	London	1st Lt., U.S.A.
Henderson, John F.	Akron	Capt., U.S.A.
Henderson, Wm. C.	Xenia	1st Lt., U.S.A.
Hendricks, A. B.	Cincinnati	Capt., U.S.A.
Hengen, Henry E.	New Riegel	Capt., U.S.A.
Henrie, Chas. C.	Celina	1st Lt., U.S.A.
Hepp, Herman	Cincinnati	1st Lt., U.S.A.
Hepp, William	Norwood	Capt., U.S.A.
Herbst, Mark Gardner	Canton	Capt., U.S.A.
Heringhaus, F. J.	Mansfield	Major, U.S.A.
Herman, Wm. W.	Cleveland	1st Lt., U.S.A.
Hermeyer, Mark E.	Napoleon	Capt., U.S.A.
Herr, Albert H.	Cleveland	Major, U.S.A.
Hershberger, Ralph E.	Tiffin	Capt., U.S.A.
Hertz, Harold J.	Cleveland Heights	1st Lt., U.S.A.
Hertzberg, Jos. M.	Toledo	Capt., U.S.A.
Herzberg, Mortimer, Jr.	Cincinnati	1st Lt., U.S.A.
Hewes, Frederic L.	Cleveland	Capt., U.S.A.
Hewgill, J. C.	Akron	Capt., U.S.A.
Heyde, Edw. C.	Wooster	1st Lt., U.S.A.
Heywood, Howard W.	Cincinnati	1st Lt., U.S.A.
Hibbs, Ralph E.	Cleveland	Capt., U.S.A.
Hicks, Warren W.	Columbus	Capt., U.S.A.
Higgins, Edwin L.	Cincinnati	1st Lt., U.S.A.
High, Luther W.	Millersburg	1st Lt., U.S.A.
Higley, C. S.	Cleveland	Major, U.S.A.
Hill, Edward Robert	Cleveland	1st Lt., U.S.A.
Hill, F. A.	Columbus	1st Lt., U.S.A.
Hill, Frank R.	Cleveland Heights	Capt., U.S.A.
Hill, Myron G.	Euclid	Capt., U.S.A.
Hill, Willard T.	Ashtabula	1st Lt., U.S.A.
Hillabrand, J. F.	Toledo	Capt., U.S.A.
Hilles, Geo. Forster	Cleveland	1st Lt., U.S.A.
Himmel, Jacob G.	Cleveland Heights	1st Lt., U.S.A.
Hinnant, Iredell M.	Shaker Heights	Capt., U.S.A.
Hirsch, Frederic G.	Toledo	Lt., U.S.N.
Hirsheimer, Albert	Dayton	Capt., U.S.A.
Hirst, David L.	Miamisburg	1st Lt., U.S.A.
Hochausler, Carl Jos.	Cincinnati	1st Lt., U.S.A.
Hochwalt, W. Richard	Dayton	Major, U.S.A.
Hoecher, Robert H.	Mt. Vernon	Capt., U.S.A.
Hoffman, Henry L.	Cleveland	1st Lt., U.S.A.
Hoge, K. M., Jr.	Cleveland	1st Lt., U.S.A.
Hoke, Geo. A.	Elyria	Capt., U.S.A.
Holmberg, Robert E.	Cleveland	1st Lt., U.S.A.
Holmes, Nicholas H.	Columbus	1st Lt., U.S.A.
Hoodin, Abraham	Niles	1st Lt., U.S.A.
Hoover, Reuben H.	Columbus	Capt., U.S.A.
Horger, Wm. J.	East Liverpool	Capt., U.S.A.
Horowitz, Martin M.	Columbus	1st Lt., U.S.A.
Horton, C. B.	Dayton	Major, U.S.A.
Horton, Robt. John Munro	Cleveland Hgts.	1st Lt., U.S.A.
Hosking, Frederick S.	Cleveland	Lt. (j.g.) U.S.N.
Hotz, Richard	Toledo	Capt., U.S.A.
Houghton, Ben	Columbus	Capt., U.S.A.
Housley, John L.	Cuyahoga	Capt., U.S.A.
Howard, Kenneth R.	Toledo	Capt., U.S.A.
Howe, Chas. E.	Westerville	Major, U.S.A.
Howell, Albert K.	Springfield	Capt., U.S.A.
Howell, Homer P.	Dayton	Capt., U.S.A.
Hudson, E. Herndon	Athens	Lt. Comdr., U.S.N.
Hudson, William E.	New Philadelphia	Capt., U.S.A.
Hughes, J. J.	Columbus	1st Lt., U.S.A.
Hull, Bradley	Cleveland	1st Lt., U.S.A.
Hullinger, Clarence Wm.	Springfield	Major, U.S.A.
Hulse, Charles Alfred	Cleveland	1st Lt., U.S.A.
Hume, Robert C.	Athens	Capt., U.S.A.
Humel, Elbert J.	Cleveland	Capt., U.S.A.
Humphrey, Harold I.	Cincinnati	Capt., U.S.A.
Humphreys, James W.	Cincinnati	1st Lt., U.S.A.
Humphries, John K.	Bellecenter	1st Lt., U.S.A.
Humphries, Wm. C.	Cleveland	1st Lt., U.S.A.
Hunter, Geo. G.	Ironton	Major, U.S.A.
Hunter, Howard Marston	Hamilton	1st Lt., U.S.A.
Hunting, Wm. Fred	Cincinnati	Capt., U.S.A
Huston, Harry R.	Dayton	Lt. Comdr., U.S.N.
Huth, Paul O.	Cambridge	Lt. Comdr., U.S.N.
Hyde, B. E. L.	Troy	Major, U.S.A.
Hyman, Morris	Cincinnati	Capt., U.S.A.
Iglauer, Arnold.	Cincinnati	Capt., U.S.A.
Ingling, Howard H.	Springfield	1st Lt., U.S.A.
Inman, J. G.	Manchester	Capt., U.S.A.
Inskeep, Lewis Carey	Urbana	1st Lt., U.S.A.
Ipp, Herman H.	Youngstown	1st Lt., U.S.A.
Ippoliti, A. C.	Dillonvale	1st Lt., U.S.A.
Irish, Everett A.	Barberton	Capt., U.S.A.
Irvin, Emory R.	Bradford	Capt., U.S.A.
Ivins, Paul N.	Hamilton	Capt., U.S.A.

Name	City	Rank
Jablonski, C. R.	Cleveland	Capt., U.S.A.
Jack, Courtney L.	Cincinnati	Capt., U.S.A.
Jacka, Edwin R.	Bryan	1st Lt., U.S.A.
Jackson, Calvin G.	Kenton	Major, U.S.A.
Jackson, Harry D.	Circleville	Col., U.S.A.
Jacobs, Herbert	Cleveland	1st Lt., U.S.A.
Jacobs, John B.	Ashland	1st Lt., U.S.A.
Jacobs, R. B.	Dayton	1st Lt., U.S.A.
Jacoby, Ben E.	Columbus	Lt (j.g.) U.S.N.
Jaffa, Jack I.	Cleveland	Capt., U.S.A.
James, Arthur	Columbus	Capt., U.S.A.
James, A. P. R.	Toledo	Lt. Comdr., U.S.N.
James, Dorrence S.	Delaware	Capt., U.S.A.
Janney, James R.	North Baltimore	1st Lt., U.S.A.
Jansen, Jos. H., Jr.	Cincinnati	1st Lt., U.S.A.
Jauch, Roland Schuster	Rocky River	Capt., U.S.A.
Jennings, Wm. M.	Sylvania	Major, U.S.A.
Jennings, Wm. Paul	Cincinnati	Capt., U.S.A.
Jinnings, Loren E.	Edon	Capt., U.S.A.
Joelson, James J.	Cleveland	Major, U.S.A.
Johanson, H. R.	Kenton	1st Lt., U.S.A.
John, Henry Jerry	Cleveland	Major, U.S.A.
Johns, Alexander N.	Toledo	Capt., U.S.A.
Johnson, Cecil A.	Canton	1st Lt., U.S.A.
Johnson, F. A.	Akron	Major, U.S.A.
Johnson, H. H.	Cleveland	1st Lt., U.S.A.
Johnson, Herbert Clifford	Mt. Vernon	1st Lt., U.S.A.
Johnson, James B., Jr.	Newark	1st Lt., U.S.A.
Johnson, Walter A.	Rossford	1st Lt., U.S.A.
Johnston, Albert M.	Marysville	Capt., U.S.A.
Johnston, Robert L.	Silverton	Major, U.S.A.
Johnston, Walter B.	Lakewood	Major, U.S.A.
Johnston, Wm. McKinley	Akron	Lt. Comdr., U.S.N.
Joice, J. E., Jr.	Warren	Capt., U.S.A.
Jolly, Paul N.	Cincinnati	1st Lt., U.S.A.
Jones, Frank H.	Columbus	Capt., U.S.A.
Jones, James F.	Cleveland	Capt., U.S.A.
Jones, John L.	Medina	Capt., U.S.A.
Jones, Paul Herdman	Stockdale	Major, U.S.A.
Jones, S. R.	Cincinnati	1st Lt., U.S.A.
Jordan, Valdemar M.	Cleveland	1st Lt., U.S.A.
Jubelirer, Richard A.	Cincinnati	1st Lt., U.S.A.
Junkerman, Carl Schulze	Columbus	Major, U.S.A.
Junkerman, Edgar B.	Columbus	Major, U.S.A.
Kackley, D. D.	Columbus	1st Lt., U.S.A.
Kahn, Joseph R.	Cleveland	Capt., U.S.A.
Kalb, Nathan	Cygnet	1st Lt., U.S.A.
Kalina, R. K.	Cleveland Hgts	1st Lt., U.S.A.
Kallay, S. L.	Lakewood	1st Lt., U.S.A.
Kalmon, M.	Akron	Capt., U.S.A.
Kamesis, John J.	Cleveland	Capt., U.S.A.
Kandrac, Francis T.	Warren	1st Lt., U.S.A.
Kane, Maurice M.	Greenville	Major, U.S.A.
Kanter, Theo. Maurice	Cleveland Heights	1st Lt., U.S.A.
Kaplan, Ronald R.	Cleveland Hgts	1st Lt., U.S.A.
Karam, H. A.	Akron	1st Lt., U.S.A.
Karam, James J.	Canton	1st Lt., U.S.A.
Karch, John M.	Cincinnati	Capt., U.S.A.
Karlan, A. M.	Springfield	1st Lt., U.S.A.
Karrer, Herman E.	Plain City	1st Lt., U.S.A.
Karwowski, Bernard A.	Toledo	Capt., U.S.A.
Kattus, Jos. Henry	Cincinnati	Capt., U.S.A.
Katz, Harry Leon	Cleveland	1st Lt. U.S.A.
Katz, Philip	Toledo	Capt., U.S.A.
Katz, Sidney	Cleveland	1st Lt., U.S.A.
Katzenmyer, Walter R.	Shaker Heights	1st Lt., U.S.A.
Kaufman, Karl F.	Bedford	1st Lt., U.S.A.
Kaufman, Paul M.	Youngstown	Capt., U.S.A.
Kaval, V. T.	Cleveland	1st Lt., U.S.A.
Kaylor, Fred W.	Bellefontaine	1st Lt. U.S.A.
Keating, Edward T.	Hamilton	1st Lt., U.S.A.
Kechele, Oliver J.	Berea	Capt., U.S.A.
Keck, Herman	Cincinnati	Lt., U.S.N.
Keefe, J. K.	Cincinnati	1st Lt., U.S.A.
Keefer, Chas. F.	Cincinnati	1st Lt., U.S.A.
Keeney, Edward J.	Cuyahoga Falls	1st Lt., U.S.A.
Keidel, Clifford L.	Cleves	Capt., U.S.A.
Kelker, John R.	Fairview Village	Capt., U.S.A.
Keller, Bayard Martin	Cuyahoga Falls	1st Lt., U.S.A.
Keller, Wm. McConkey	Lodi	1st Lt., U.S.A.
Kellogg, Paul E.	Ashland	Lt. Comdr., U.S.N.
Kelly, Donald A.	Cleveland	Capt., U.S.A.
Kelly, Fred R.	Cleveland	1st Lt., U.S.A.
Kemp, Hardy A.	Columbus	Major, U.S.A.
Kendall, Milton M.	Youngstown	1st Lt., U.S.A.
Kennedy, Roscoe J.	Cleveland	Lt. Comdr., U.S.N.
Kenney, Vernon C.	Chagrin Falls	Capt., U.S.A.
Keogh, Joseph P.	Youngstown	Lt. (j.g.) U.S.N.
Kersell, Lloyd L.	Lancaster	Capt., U.S.A.
Kesinger, Herbert F.	McArthur	1st Lt., U.S.A.
Kessel, Sol	Cincinnati	1st Lt., U.S.A.
Kessler, Morris M.	Cleveland Heights	1st Lt., U.S.A.
Kessler, S. W.	Cleveland	Capt., U.S.A.
Keyes, F. G.	Cuyahoga Falls	Capt., U.S.A.
Keyes, John E. L.	Cleveland	Major, U.S.A.
Keys, Harry J., Jr.	Columbus	1st Lt., U.S.A.
Kezur, Edward	Cincinnati	1st Lt., U.S.A.
Kidd, John M.	Galion	Lt., U.S.N.
Kilpatrick, E. M.	Columbus	Capt., U.S.A.
Kimmel, A. H.	Norwalk	Capt., U.S.A.

Name	City	Rank
Kimmelman, David B.	Columbus	1st Lt., U.S.A.
King, Arthur G.	Cincinnati	Lt. Col., U.S.A.
King, Boyd G.	Cleveland	Major, U.S.A.
King, Douglass	Alliance	1st Lt., U.S.A.
King, E. Richard	West Liberty	Lt., U.S.N.
King, Geo. Lincoln, Jr.	Alliance	Lt. Col., U.S.A.
King, Harry E.	Dayton	Capt., U.S.A.
King, James D.	Columbus	Capt., U.S.A.
King, John Harold	Cincinnati	Capt., U.S.A.
Kingsley, Glenn E.	Lorain	1st Lt., U.S.A.
Kirchman, Herbert	Germantown	1st Lt., U.S.A.
Kirk, Robert C.	Columbus	Capt., U.S.A.
Kirk, T. K.	Dayton	Capt., U.S.A.
Kirkbride, Willis J.	Toledo	1st Lt., U.S.A.
Kirkendall, E. T.	Columbus	Col., U.S.A. (Field Artillery)
Kish, Louis S.	Cleveland	1st Lt., U.S.A.
Kistler, Victor N.	Columbus	1st Lt., U.S.A.
Klatman, S. J.	Akron	1st Lt., U.S.A.
Klatman, Samuel	Youngstown	1st Lt., U.S.A.
Klein, Jos. B.	Cleveland	Capt., U.S.A.
Kletzkin, Sidney	Cleveland	1st Lt., U.S.A.
Klewer, Harold W.	Toledo	Lt., U.S.N.
Kling, Herman A.	Youngstown	Capt., U.S.A.
Klinge, John E.	Massillon	1st Lt., U.S.A.
Kloffer, Edward	Columbus	Capt., U.S.A.
Klopfenstein, A. R.	Toledo	Lt. Comdr., U.S.N.
Klopfer, Edward G.	Cleveland	1st Lt., U.S.A.
Knapp, Jack D.	Lore City	1st Lt., U.S.A.
Knapp, John Adam	London	Capt., U.S.A.
Knickerbocker, Wadsworth	Cleveland	Capt., U.S.A.
Knierim, Harlan	Mansfield	Lt., U.S.N.
Knies, Phillip T.	Columbus	Major, U.S.A.
Knight, Frederick E.	Grafton	Lt. (j.g.) U.S.N.
Knisely, Alan DeGrief	Lima	Major, U.S.A.
Knisely, Earl Perry	Columbus	1st Lt., U.S.A.
Knowlton, Edgar A.	Cleveland	1st Lt., U.S.A.
Knowlton, Richard S.	Cleveland	Capt., U.S.A.
Kobacher, J. Lester	Toledo	Lt. Comdr., U.S.N.
Koch, Geo. E.	Cincinnati	Capt., U.S.A.
Kocur, James L.	Cleveland	Capt., U.S.A.
Koechert, Herbert	Cleveland	Major, U.S.A.
Koehler, Joseph S.	Dayton	Lt. Comdr., U.S.N.
Kogut, Lewis V.	Cleveland	Capt., U.S.A.
Kohrman, B. M.	Orwell	Capt., U.S.A.
Kolb, Geo. C.	Cincinnati	Capt., U.S.A.
Kolb, Thomas V.	So. Charleston	Capt., U.S.A.
Kossuth, L. C.	Cleveland	1st Lt., U.S.A.
Kostoff, Albert	Columbus	Capt., U.S.A.
Kotershall, Edw. F.	Cleveland	Capt., U.S.A.
Kotte, Robert H.	Cincinnati	Major, U.S.A.
Kovacs, Andrew	Cleveland	Capt., U.S.A.
Krakoff, Morris A.	Columbus	1st Lt., U.S.A.
Kramer, John Alan	Ada	1st Lt., U.S.A.
Krasne, Saul	Wickliffe	1st Lt., U.S.A.
Kraus, Karl J.	Cincinnati	1st Lt., U.S.A.
Krause, George R.	Cleveland	Major, U.S.A.
Kreindler, Louis	Cincinnati	1st Lt., U.S.A.
Krishna, Ikbal	Toledo	Capt., U.S.A.
Kriz, Joseph Rudolph	Toledo	Capt., U.S.A.
Kronenberg, Sanford	Youngstown	1st Lt., U.S.A.
Krupko, Paul E.	Cleveland Hgts	1st Lt., U.S.A.
Kubiac, Willis T.	Lancaster	1st Lt., U.S.A.
Kuehn, A. J.	Toledo	Major, U.S.A.
Kukuk, Milton R.	Toledo	1st Lt., U.S.A.
Kulle, Henry F.	Cincinnati	Capt., U.S.A.
Kumpe, Carl W.	Hillsboro	1st Lt., U.S.A.
Kuntz, Clarence I.	Fremont	Capt., U.S.A.
Kunz, Franklyn Craig	Akron	1st Lt., U.S.A.
Kupec, Jos. B.	Youngstown	1st Lt., U.S.A.
Kupper, Wm. H.	Athens	1st Lt., U.S.A.
Kurlander, Jos. J.	Cleveland	Major, U.S.A.
Kyman, Seymour	Cleveland Heights	1st Lt., U.S.A.
Lacksen, Frank J.	Columbus	Major, U.S.A.
Lacock, W. B.	Logan	Major, U.S.A.
Lacock, Wilford C.	Beaverdam	Capt., U.S.A.
Laidlaw, Arthur E.	Cincinnati	1st Lt., U.S.A.
Lamb, A. J.	Cleveland	1st Lt., U.S.A.
Lamkin, Glenn S.	Sardinia	1st Lt., U.S.A.
LaMonica, L. L.	Cleveland	1st Lt., U.S.A.
Lancione, Peter	Bellaire	1st Lt., U.S.A.
Landen, Cornelius	Columbus	1st Lt., U.S.A.
Langacher, Karl T.	Mansfield	1st Lt., U.S.A.
Langan, Paul C.	Akron	Major, U.S.A.
Langsam, Chas. Lewis	Macedonia	Major, U.S.A.
Lapi, Angelo	Canton	1st Lt., U.S.A.
Lapirow, Harry	Cincinnati	Capt., U.S.A.
Lapp, Harry Thomas	Utica	Capt., U.S.A.
Large, Henry Ranney	Cleveland	1st Lt., U.S.A.
Larrick, L. E.	Norwood	1st Lt., U.S.A.
Larsen, B. B.	Shaker Heights	Major, U.S.A.
Latta, David	Jerusalem	1st Lt., U.S.A.
Lauer, Howard	Dayton	1st Lt., U.S.A.
Lawrence, Gerald P.	Columbus	Col., U.S.A.
Lawrence, Hans W.	Cleveland	Major, U.S.A.
Lawrence, Leslie L.	Canton	Major, U.S.A.
Lawton, O. M.	Canfield	Lt. Comdr., U.S.N.
Lawyer, Frank G.	Cambridge	Capt., U.S.A.
Layman, O. L.	Franklin	1st Lt., U.S.A.
Lazarus, Lawrence	Cleveland	1st Lt., U.S.A.

Name	City	Rank
Lazzari, J. H.	Cleveland	Major, U.S.A.
Lecklitner, Myron D.	Wilmot	1st Lt., U.S.A.
Leffler, Paul B.	Toledo	Capt., U.S.A.
Lefkowitz, H. J.	Shaker Heights	Capt., U.S.A.
Lehman, Robert	Dayton	Lt., U.S.N.
Lehmann, Benjamin J.	Middletown	1st Lt., U.S.A.
Lehmiller, Karl L.	Canton	Capt., U.S.A.
Lehrer, Henry G.	Wadsworth	Lt. (j.g.) U.S.N.
Leichliter, John W.	Cincinnati	Major, U.S.A.
Lemon, George H.	Fayette	1st Lt., U.S.A.
Lenhert, Amos E.	Cleveland	1st Lt., U.S.A.
Leonard, D. E.	Cuyahoga Falls	1st Lt., U.S.A.
Lepsky, H. O.	Cincinnati	Capt., U.S.A.
Lerner, David L.	Cincinnati	Capt., U.S.A.
LeSar, Geo. W., Jr.	Cleveland	1st Lt., U.S.A.
Lesser, Henry Rothschild	Toledo	Lt. Col., U.S.A.
Leuchtag, Harry Herman	Akron	Capt, U.S.A.
Levin, David K.	Toledo	1st Lt., U.S.A.
Levin, Jos. J.	Canton	1st Lt., U.S.A.
Levin, Tom S.	Cincinnati	Lt., U.S.N.
Levine, Milton	New Boston	1st Lt., U.S.A.
Leyrer, Ralph Henry	Hamilton	1st Lt., U.S.A.
Libecap, Irvin L.	Cleveland	1st Lt., U.S.A.
Liber, K. E.	Canton	Major, U.S.A.
Lichtblau, A. A.	Canton	1st Lt., U.S.A.
Liebow, Irving M.	Cleveland	Capt., U.S.A.
Lieberman, H. G.	Akron	1st Lt., U.S.A.
Lieberman, L. J.	Cleveland	Capt., U.S.A.
Lieder, Louis Eugene	Cleveland	Major, U.S.A.
Lieser, Wm. A.	Canton	1st Lt., U.S.A.
Light, Richard Carl	Lima	1st Lt., U.S.A.
Light, Rudolph Alvin	Cleveland	1st Lt., U.S.A.
Light, T. L.	Dayton	Capt., U.S.A.
Limbacher, Henry P.	Cleveland	1st Lt., U.S.A.
Lind, S. C.	Cleveland	Lt. Comdr., U.S.N.
Lindenmayer, Alfred P.	Cleveland	1st Lt., U.S.A.
List, Ellis W.	Andover	Lt. Comdr., U.S.N.
Lobe, Samuel	Cincinnati	Capt., U.S.A.
Loeb, William J.	Cleveland Heights	Capt., U.S.A.
Lohr, L. J.	Dayton	Capt., U.S.A.
Lombardi, L. F.	Akron	1st Lt., U.S.A.
London, McKinley	Cleveland	Lt. Comdr., U.S.N.
Long, H. A.	Hamilton	1st Lt., U.S.A.
Long, Ray H.	Cleveland Heights	Capt., U.S.A.
Longacre, Jacob J.	Cincinnati	Capt., U.S.A.
Loomis, E. C.	Dayton	Major, U.S.A.
Lord, Raymond S.	Fredericktown	1st Lt., U.S.A.
Lord, S. N.	Somerset	Capt., U.S.A.
Lotzoff, Harold A.	Lima	Capt., U.S.A.
Lovebury, Wm. F.	Columbus	Capt., U.S.A.
Lowry, Forrest E..	Urbana	Capt., U.S.A.
Lowry, Kenneth F.	Troy	Major, U.S.A.
Lucas, Richard	Columbus	Capt., U.S.A.
Luidens, Henry	Cleveland	Capt., U.S.A.
Lulenski, Chester R.	Cleveland	1st Lt., U.S.A.
Lustberg, Alfred	Cincinnati	1st Lt., U.S.A.
Lutz, John R.	North Ridgeville	1st Lt., U.S.A.
Lyle, Herbert P.	Cincinnati	Lt. Comdr., U.S.N.
Lynch, Cornelius, Jr.	Toledo	1st Lt., U.S.A.
Lyon, E. E.	Toledo	Major, U.S.A.
Lytle, R. P.	Cleveland	Capt., U.S.A.
MacDougall, Edw. L.	Niles	1st Lt., U.S.A.
Mack, Jas. R.	Cincinnati	Capt., U.S.A.
Mack, Joseph	Canton	1st Lt., U.S.A.
MacNeil, A. C.	Shaker Heights	Capt., U.S.A.
Maczuga, John A.	Toledo	Capt., U.S.A.
Maggiore, J. J.	Canton	1st Lt., U.S.A.
Magid, David	Cleveland	Capt., U.S.A.
Magnuson, Robert H.	Bexley	1st Lt., U.S.A.
Mahl, George K.	Ironton	Capt., U.S.A.
Maier, Ruben R.	Shaker Heights	Capt., U.S.A.
Malasky, Bernard S.	Cleveland Heights	1st Lt., U.S.A.
Mallin, Lloyd P.	Cincinnati	1st Lt., U.S.A.
Malock, Leon J.	Youngstown	Capt., U.S.A.
Malong, Edmund	Cleveland	Capt., U.S.A.
Malmud, M. M.	Sharon Center	1st Lt., U.S.A.
Maltby, George L.	Cincinnati	Capt., U.S.A.
Mancin, Alexander	Cleveland	1st Lt., U.S.A.
Mannino, Rosario, G.	Newark	1st Lt., U.S.A.
Mansfield, Robert D.	Canton	Major, U.S.A.
Maple, John Lloyd	Louisville	Capt., U.S.A.
Marcus, David	Cleveland Heights	Capt., U.S.A.
Marcus, L. L.	Toledo	Capt., U.S.A.
Margolis, Meyer N.	Cincinnati	Capt., U.S.A.
Marinelli, Adolphus C.	Youngstown	Capt., U.S.A.
Marines, Thomas P.	Mansfield	1st Lt., U.S.A.
Markey, Leo R.	Cleveland	Major, U.S.A.
Markey, Robert C.	Dayton	Capt., U.S.A.
Markley, Wm. W.	Cleveland	1st Lt., U.S.A.
Marley, Harold V.	Cleveland	1st Lt., U.S.A.
Marlowe, Chas. R.	Toledo	1st Lt., U.S.A.
Marquart, J. R.	Springfield	Capt., U.S.A.
Marr, James T.	Cleveland	1st Lt., U.S.A.
Marsh, C. D.	Springfield	Capt., U.S.A.
Marsh, Wm. C.	Toledo	Lt., U.S.N.
Marshall, Edw. A.	Cleveland	Major, U.S.A.
Marshall, J. H.	Findlay	Major, U.S.A.
Marshall, Merritt K.	Findlay	1st Lt., U.S.A.
Marsico, H. C.	Lorain	1st Lt., U.S.A.
Marsico, John A.	Lorain	Capt., U.S.A.
Martin, Archie J.	Adena	1st Lt., U.S.A.
Martin, George Isaac	Dayton	1st Lt., U.S.A.
Martin, James F.	Cincinnati	1st Lt., U.S.A.
Martin, John E.	Bexley	1st Lt., U.S.A.
Martin, K. E.	Cincinnati	Lt. Comdr., U.S.N.
Martin, M. B.	Springfield	1st Lt., U.S.A.
Martin, Marion R.	Geneva	Capt., U.S.A.
Martin, Norvil A.	Gallipolis	Major, U.S.A.
Martin, Walter E.	Columbus Grove	1st Lt., U.S.A.
Martin, Wm. J.	Fremont	1st Lt., U.S.A.
Maryanski, Wm. Howard	Akron	1st Lt., U.S.A.
Master, John R.	Cleveland	1st Lt., U.S.A.
Masters, W. Eugene	Columbus	Lt. Comdr., U.S.N.
Mastropaolo, A. J.	Batavia	1st Lt., U.S.A.
Matson, John W.	Uhrichsville	1st Lt., U.S.A.
Matteo, Michael L.	Cleveland	1st Lt., U.S.A.
Matuska, Walter H.	Ottawa	Lt. Col., U.S.A.
Matuszewski, Stanley J.	Cleveland	1st Lt., U.S.A.
Maurer, E. P.	Cleveland	1st Lt., U.S.A.
Maxwell, Frank H.	Mansfield	Capt., U.S.A.
Maxwell, Howard D.	Alliance	Capt., U.S.A.
Maxwell, Thomas	Dayton	1st Lt., U.S.A.
May, James R.	Cleveland	Capt., U.S.A.
Mayfield, F. H.	Cincinnati	Capt., U.S.A.
McAfee, James P.	Porthsmouth	Capt., U.S.A.
McAllister, Earl D.	Chillicothe	Capt., U.S.A.
McAllister, Thurman Francis	Coshocton	1st Lt., U.S.A.
McAuley, James R.	Perrysburg	Capt., U.S.A.
McBroom, R. E.	McComb	Capt., U.S.A.
McCaffery, Robert J.	Lakewood	1st Lt., U.S.A.
McCall, Edward W.	Columbus	1st Lt., U.S.A.
McCally, W. C.	Cleveland	Lt. Col., U.S.A.
McCammon, F. A.	Van Wert	1st Lt., U.S.A.
McCandless, Harvey G.	Cincinnati	Capt., U.S.A.
McCarthy, Kenneth C.	Toledo	Major, U.S.A.
McClelland, E. E.	Bellaire	Capt., U.S.A.
McClure, Jasper R.	Cincinnati	Capt., U.S.A.
McConkey, Auren W.	Canton	Capt., U.S.A.
McConkey, Harmar H.	Canton	1st Lt., U.S.A.
McConnell, Paul R.	Youngstown	Major, U.S.A.
McCormick, J. E.	Zanesville	Capt., U.S.A.
McCoy, States D.	Columbus	Major, U.S.A.
McCready, Robert G.	Akron	1st Lt., U.S.A.
McCune, Elmer Troy	Sebring	1st Lt., U.S.A.
McDonald, F. M.	Akron	Capt., U.S.A.
McElroy, Wm. D.	Youngstown	Major, U.S.A.
McGavran, Chas. W.	Columbus	1st Lt., U.S.A.
McGaw, Wilbert H.	Cleveland	Major, U.S.A.
McGowan, Wm. Louis	Cincinnati	1st Lt., U.S.A.
McGraw, Elmer A.	Toronto	1st Lt., U.S.A.
McGuire, P. J.	Barberton	Capt., U.S.A.
McIver, John M.	Cleveland	1st Lt., U.S.A.
McKay, J. R.	Cleveland	1st Lt., U.S.A.
McKee, Wilbur Eilers	Bryan	1st Lt., U.S.A.
McKelvey, Robert H.	Salem	Capt., U.S.A.
McKinley, C. E.	Camden	Capt., U.S.A.
McKinley, Melvin P.	Cleveland	Capt., U.S.A.
McLaughlin, John B.	Columbus	Capt., U.S.A.
McNeil, C. A.	Toledo	Lt. Comdr., U.S.N.
McNerney, N. H.	Cleveland	Lt. Col., U.S.A.
McWilliams, John M.	Toledo	Capt., U.S.A.
Meany, Frank Lawrence	Lakewood	Capt., U.S.A.
Meck, F. S.	Cleveland	Lt., U.S.N.
Meckstroth, Paul Gerhard	New Knoxville	Capt., U.S.A.
Mehl, Lawrence B.	Cuyahoga Falls	Capt., U.S.A.
Mehlman, I. J.	Attica	Capt., U.S.A.
Meiling, R. L.	Columbus	Capt., U.S.A.
Meltzer, Jack	Cleveland	Capt., U.S.A.
Mendelsohn, Harvey J.	Cleveland	1st Lt., U.S.A.
Merchant, Frederick T.	Marion	1st Lt., U.S.A.
Meredith, Roy M.	Marietta	1st Lt., U.S.A.
Merrill, Willis B.	Columbus	Capt., U.S.A.
Mescham, Isadore	Cleveland	1st Lt., U.S.A.
Messenger, Harold M.	New London	1st Lt., U.S.A.
Meyer, Donald Duncan	Columbus	1st Lt., U.S.A.
Meyer, Paul D.	Cleveland	Capt., U.S.A.
Meyer, Wm. G.	Columbus	1st Lt., U.S.A.
Meyers, Geo. A.	Cincinnati	1st Lt., U.S.A.
Meyers, J. S.	Versailles	1st Lt., U.S.A.
Michael, Nicholas	Columbus	Major, U.S.A.
Middleton, R. H.	Youngstown	Capt., U.S.A.
Mielcarek, P. A.	Cleveland	Capt., U.S.A.
Miessner, Alfred D.	Port Clinton	Capt., U.S.A.
Mikesell, H. L.	West Liberty	Major, U.S.A.
Miller, Alexander	Cleveland	Major, U.S.A.
Miller, Donald A.	Youngstown	Capt., U.S.A.
Miller, Harold N.	Cleveland	Capt., U.S.A.
Miller, Isadore	Urbana	1st Lt., U.S.A.
Miller, Jacque E.	Shelby	Lt., U.S.N.
Miller, John Fleek	Newark	Capt., U.S.A.
Miller, Lawrence H.	Granville	1st Lt., U.S.A.
Miller, Louis	Cleveland Heights	1st Lt., U.S.A.
Miller, Michael M.	Steubenville	Capt., U.S.A.
Miller, Noah	Akron	Capt., U.S.A.
Miller, R. C.	Dayton	1st Lt., U.S.A.
Miller, R. F.	Bellevue	Capt., U.S.A.
Miller, Rollis R., Jr.	Cleveland	1st Lt., U.S.A.
Miller, Thomas E.	Ironton	1st Lt., U.S.A.
Miller, Thomas S.	Maumee	1st Lt., U.S.A.
Millikin, Neil	Hamilton	Capt., U.S.A.
Mills, James Fleming	Cincinnati	1st Lt., U.S.A.

Name	City	Rank
Milster, Clyde R.	Columbus	1st Lt., U.S.A.
Mincks, Chas. B.	Cuyahoga Falls	1st Lt., U.S.A.
Minder, D. A.	Columbus	Capt., U.S.A.
Minnig, Donald Irwin	Akron	1st Lt., U.S.A.
Minning, Carl A.	Williamsburg	Capt., U.S.A.
Minnis, Dean H.	Amherst	Capt., U.S.A.
Mirsky, Isadore A.	Cincinnati	Capt., U.S.A.
Mishler, Howard V.	Cleveland	1st Lt., U.S.A.
Missal, Sylvester C.	Cleveland	Capt., U.S.A.
Mitchell, Homer Lee.	Columbus	Capt., U.S.A.
Mitchell, W. F.	Columbus	1st Lt., U.S.A.
Modic, Joseph L.	Cleveland	1st Lt., U.S.A.
Mohr, Truman J.	Lockland	Capt., U.S.A.
Molle, S. Albert	Toledo	1st Lt., U.S.A.
Mollin, Edwin L.	Akron	1st Lt., U.S.A.
Montgomery, E. L.	Circleville	Capt., U.S.A.
Moody, Wm. M.	Cincinnati	1st Lt., U.S.A.
Moore, F. T.	Cuyahoga Falls	Major, U.S.A.
Moore, John Mark	Piney Fork	1st Lt., U.S.A.
Moore, Kenneth L.	Dayton	Capt., U.S.A.
Moore, Randolph Patton	Cleveland	1st Lt., U.S.A.
Moore, Wm. Arthur	Cincinnati	1st Lt., U.S.A.
Moorehead, James R.	Seville	Capt., U.S.A.
Moorehead, Orman, Jr.,	Athens	1st Lt., U.S.A.
Morgan, Chester O.	Van Wert	1st Lt., U.S.A.
Morse, Dan G.	Columbus	Capt., U.S.A.
Morton, J. L.	Cleveland	Capt., U.S.A.
Morton, Wallace	Toledo	Capt., U.S.A.
Mosher, Henry Adams	Dayton	Capt., U.S.A.
Mossman, Jack D.	Columbus	1st Lt., U.S.A.
Mowrey, John H.	Conneaut	1st Lt., U.S.A.
Mowry, Benjamin Franklin	Findlay	Major, U.S.A.
Mowry, Robert S.	Lima	1st Lt., U.S.A.
Moyer, Lewaaron H.	Youngstown	Capt., U.S.A.
Munns, Thomas A.	Oxford	Capt., U.S.A.
Murbach, Clarence F.	Archbold	Lt. Col., U.S.A.
Murphy, Howard J.	Toledo	Capt., U.S.A.
Musta, Walter	Macedonia	1st Lt., U.S.A.
Muter, Clyde W.	Warren	1st Lt., U.S.A.
Mutschmann, P. N.	Warren	Major, U.S.A.
Myers, Ben Vernon	Elyria	1st Lt., U.S.A.
Myers, C. E.	Akron	Capt., U.S.A.
Myers, R. D.	Columbus	Capt., U.S.A.
Myers, Stanley A.	Youngstown	Lt., U.S.N.
Mynchenberg, Geo. C.	Elyria	Major, U.S.A.
Namen, Jay M.	Cleveland Heights	Capt., U.S.A.
Nantz, Frank A.	Cincinnati	1st Lt., U.S.A.
Nathan, D. A.	Cincinnati	1st Lt., U.S.A.
Nauman, John Henry	Martins Ferry	Major, U.S.A.
Neal, Wm. J.	Archbold	1st Lt., U.S.A.
Neary, Edward P.	Cleveland Heights	Capt., U.S.A.
Needham, Leslie E.	Conneaut	Capt., U.S.A.
Neese, John	Mt. Victory	1st Lt., U.S.A.
Neff, Frank R.	London	Capt., U.S.A.
Neff, Garnett E.	Portsmouth	Capt., U.S.A.
Neidus, M. W.	Youngstown	Capt., U.S.A.
Neill, W. A.	Toledo	Comdr., U.S.N.
Neiswander, Paul L.	Ada	1st Lt., U.S.A.
Nelson, G. G.	Youngstown	Major, U.S.A.
Newell, T. E.	Dayton	Lt. Comdr., U.S.N.
Newport, N. M.	Zanesville	Capt., U.S.A.
Nicholson, Owen J.	Norwalk	Capt., U.S.A.
Nieman, Roland Edward	Cincinnati	1st Lt.. U.S.A.
Nimitz, Herman J.	Cincinnati	Major, U.S.A.
Niple, Richard A.	St. Clairsville	1st Lt., U.S.A.
Nipple, V. C.	Midvale	Capt., U.S.A.
Noll, John, Jr.	Youngstown	Major, U.S.A.
Norcross, N. C.	Toledo	Lt. (j.g.) U.S.N.
Northrup, Clarence E.	McConnelsville	Capt., U.S.A.
Northrup, Deane H.	Marietta	1st Lt., U.S.A.
Northrup, Spencer	Toledo	Lt. (j.g.) U.S.N.
Norton, Harold J.	Columbus	Capt., U.S.A.
Novak, Theodore W.	Columbus	Capt., U.S.A.
Novince, Wm. Michael	Cleveland	1st Lt., U.S.A.
Novy, Frank D.	Parma	Capt., U.S.A.
Nuckols, C. R.	Cleveland	Lt., U.S.N.
Oakes, Milton Caleb	Lexington	1st Lt., U.S.A.
O'Bell, John James	Kingsville	Capt., U.S.A.
Obenour, Sterling W.	Zanesville	Lt. Comdr., U.S.N.
Oberson, Emil C.	Cleveland	Capt., U.S.A.
Ockington, Jas. W.	Lakewood	Capt., U.S.A.
O'Dea, Frank J.	Cleveland	1st Lt., U.S.A.
Oldaker, Arch L.	Cleveland	Capt., U.S.A.
Ondash, Stephen W.	Youngstown	Capt., U.S.A.
Ormond, A. C.	Zanesville	Capt., U.S.A.
Orosz, Ernest C.	Fairport Harbor	Capt., U.S.A.
Ort, Milton Ross	Columbus	1st Lt., U.S.A.
Osborne, Johnston F.	Cleveland Heights	1st Lt., U.S.A.
Osherwitz, M. S.	Cincinnati	1st Lt., U.S.A.
Osler, George E.	Cincinnati	Capt., U.S.A.
Osmond, John Dexter	Cleveland Heights	1st Lt., U.S.A.
Ostergard, Robert P.	Canton	1st Lt., U.S.A.
Owen, K. A.	Akron	Capt., U.S.A.
Owens, A. J.	Youngstown	1st Lt., U.S.A.
Oxley, Charles M.	Cincinnati	1st Lt., U.S.A.
Pagano, James J.	Canton	1st Lt., U.S.A.
Page, Robert O.	Lima	Major, U.S.A.
Paisley, Ralph C.	Loudonville	Capt., U.S.A.
Paley, Aaron	Cleveland	1st Lt., U.S.A.
Palmer, G. A.	Akron	Major, U.S.A.
Palsis, Peter Paul	Parma	Capt., U.S.A.
Papierniak, F. B.	Cleveland	Capt., U.S.A.
Papp, Sandor D.	Dayton	Capt., U.S.A.
Parish, Warren G.	Cleveland	Lt., U.S.N.
Park. Benjamin S.	Painesville	Lt. Comdr., U.S.N.
Park, James Henderson	Ashtabula	Capt., U.S.A.
Parke. G. K.	Akron	Capt., U.S.A.
Parker, George J.	Columbus	1st Lt., U.S.A.
Parker, Wendell	Cleveland	Capt., U.S.A.
Partington, Philip F.	Shaker Heights	Capt., U.S.A.
Pastor, Julius W.	Cleveland	Capt., U.S.A.
Pater, Joseph L.	Hamilton	1st Lt., U.S.A.
Patterson, O. F.	Holmesville	1st Lt., U.S.A.
Patterson, Robert J.	Springfield	1st Lt., U.S.A.
Patton, Thos. E.	North Jackson	Capt., U.S.A.
Payne, L. W.	Willoughby	Capt., U.S.A.
Peabody, Carroll A.	Shaker Heights	1st Lt., U.S.A.
Pearlman, Albert	Cincinnati	R.A.M.C., England
Pease, Phillip P.	Chardon	Lt. Col., U.S.A.
Peck, Howard B.	Mansfield	Major, U.S.A.
Peebles, T. A.	Lorain	Major, U.S.A.
Peelle, Elias D.	Wilmington	1st Lt., U.S.A.
Pennington, Porter C.	Findlay	Lt. Col., U.S.A.
Pennington, Wm. A.	Marion	1st Lt., U.S.A.
Pelegrin, Ralph J.	East Cleveland	Lt. (j.g.) U.S.N.
Pelton, Bernard L.	Toledo	1st Lt., U.S.A.
Perlman, Robert	Cincinnati	Major, U.S.A.
Perlin, M. H.	Cleveland	1st Lt., U.S.A.
Permut, S. R.	Cleveland Heights	Capt., U.S.A.
Perry, Claude S.	Columbus	Major, U.S.A.
Perry, Wm. H.	Cleveland	Lt. Comdr., U.S.N.
Petcoff, B. E.	Toledo	Capt., U.S.A.
Petcoff, John E.	Toledo	1st Lt., U.S.A.
Peters. Geo. S.	Massillon	Lt. (j.g.) U.S.N.
Peterson, Guy S., Jr.	Cleveland	1st Lt., U.S.A.
Peterson, Marcellus L.	Cincinnati	Lt. Col., U.S.A.
Petznick, Geo. E.	Shaker Heights	Capt., U.S.A.
Pevaroff, H. H.	Cleveland	Capt., U.S.A.
Pfanner, E. F.	Dayton	Lt. Comdr., U.S.N.
Pfeiffer, Chas. L.	Cincinnati	Lt., U.S.N.
Phillips, A. K.	Youngstown	1st Lt., U.S.A.
Phillips, Clovis H.	Cleveland	Major, U.S.A.
Phillips, Wm. A.	Toledo	1st Lt., U.S.A.
Phinney, Jas. D.	Cincinnati	1st Lt., U.S.A.
Piatt, Arnold D.	Newark	Capt., U.S.A.
Picha, V. J.	Cleveland	1st Lt., U.S.A.
Pickard, Edgar C.	Stow	Capt., U.S.A.
Pickett, Frank J.	Cleveland	1st Lt., U.S.A.
Pillersdorf, Louis	Cleveland	Capt., U.S.A.
Pilloff, Benjamin	Uhrichsville	1st Lt., U.S.A.
Pilmer, Gordon A.	Springfield	1st Lt., U.S.A.
Pimsner, Arthur Adolf	Lakewood	Capt., U.S.A.
Pinkerton, A. W.	Lima	Major, U.S.A.
Pinnell, Earl E.	Osborn	1st Lt., U.S.A.
Piper, Robert Seymour	Cincinnati	1st Lt., U.S.A.
Piraino, Anthony	Oberlin	1st Lt., U.S.A.
Pirrung, M. C.	Portsmouth	Capt., U.S.A.
Pischieri, J. V.	Shaker Heights	Capt., U.S.A.
Pitcher, Carter L.	Portsmouth	Capt., U.S.A.
Pitkin, York N.	Cleveland	Lt. Col., U.S.A.
Piver, Wm. C., Jr.	Cleveland	1st Lt., U.S.A.
Placak, J. C., Jr.	Cleveland	Lt., U.S.N.
Pliskin, Reuben R.	Akron	Capt., U.S.A.
Pocotte, Robert Wilson	Toledo	1st Lt., U.S.A.
Podesta, Jos J.	Cincinnati	Capt., U.S.A.
Pokerr, Leo	Fremont	Capt., U.S.A.
Pollack, Alexander	Columbus	1st Lt., U.S.A.
Pollack, David	Columbus	Capt., U.S.A.
Polot, David M.	Cleveland Heights	Capt., U.S.A.
Porbe, Clarence O.	Cleveland	1st Lt., U.S.A.
Porter, Wm. L.	Cincinnati	1st Lt., U.S.A.
Pospisil, R. J.	Springfield	1st Lt., U.S.A.
Potter, F. A.	Toledo	Capt., U.S.A.
Potter, F. C.	Cuyahoga Falls	Lt. Col., U.S.A.
Powell, James G.	Painesville	Capt., U.S.A.
Pratt, Malcolm	Bellefontaine	Lt. Comdr., U.S.N.
Press, Sanford	Steubenville	1st Lt., U.S.A.
Price, John Evan	Cincinnati	Capt., U.S.A.
Price, Walter Samuel	Phillipsburg	1st Lt., U.S.A.
Pritchett, Clark	Columbus	Capt., U.S.A.
Prochaska, Chas. J.	South Euclid	Capt., U.S.A.
Pudzinski, Edwin S.	Cleveland	1st Lt., U.S.A.
Pulford, Dayton T.	Toledo	Capt., U.S.A.
Pumphrey, Gordon H.	Mt. Vernon	Capt., U.S.A.
Puppel, A. D.	Ashley	1st Lt., U.S.A.
Purchla, Edward J.	Toledo	1st Lt., U.S.A.
Purfield, Wm. P.	Cincinnati	1st Lt., U.S.A.
Quill, Laurence M.	Cincinnati	Capt., U.S.A.
Quinn, Gerald Wm.	Akron	1st Lt., U.S.A.
Quinn, Robert E.	Chillicothe	Capt., U.S.A.
Radecki, Jos. A.	Toledo	1st Lt., U.S.A.
Raines, James R.	Cleveland	Capt., U.S.A.
Raitz, Roswell E.	Cincinnati	Capt., U.S.A.
Ralston, Jos. A.	Warren	1st Lt., U.S.A.

(Continued on page 968)

Announcing

a supplemental aluminum therapy

*Phosphaljel**

WYETH'S ALUMINUM PHOSPHATE GEL

Aluminum hydroxide gel is accepted therapy in the management of peptic ulcer . . . Its impressive record of effectiveness suggested the development of an alternate aluminum preparation to meet particular requirements in certain cases.†

Phosphaljel, Wyeth's Aluminum Phosphate Gel, was originated by Wyeth and was used experimentally in the first successful attempt to prevent postoperative jejunal ulcer in Mann-Williamson dogs. Some animals were allowed to develop Mann-Williamson ulcers and the effectiveness of Phosphaljel was further demonstrated when its administration was followed by prompt healing of these lesions in every case.[1]

In man, Phosphaljel was found to be most effective in peptic ulcer following gastrojejunostomy, a condition which appears to be analogous to the Mann-Williamson ulcer in dogs.[1]

These results suggest that Phosphaljel is indicated in those cases of peptic ulcer associated with a relative or absolute deficiency of pancreatic juice, diarrhea or a low phosphorus diet.

The suggested dosage of Phosphaljel is one, or occasionally, two tablespoonfuls every two hours during the active stage of the ulcer. Later in the course of management, three tablespoonfuls with meals and at bedtime or two tablespoonfuls six times daily with or between meals is recommended. Wyeth's Aluminum Phosphate Gel is supplied in twelve fluid ounce bottles and is available at all pharmacies.

†Phosphaljel is accepted for use in the treatment of peptic ulcer associated with a relative or absolute deficiency of pancreatic juice, diarrhea or a low phosphorus diet.

ACCEPTED AMERICAN MEDICAL ASSN.

Phosphaljel contains 4% aluminum phosphate and possesses antacid, astringent and demulcent properties analogous to those of aluminum hydroxide gel.

[1] *Fauley, G. B.; Freeman, S.; Ivy, A. C.; Atkinson, A. J., and Wigodsky, H. S.: Aluminum Phosphate in the Therapy of Peptic Ulcer, Arch. Int. Med. 67: 563-578 (March) 1941.*

PHOSPHALJEL

Wyeth's Aluminum Phosphate Gel

*Reg. U. S. Pat. Off.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

Name	City	Rank
Ralston, Louis G.	Youngstown	1st Lt., U.S.A.
Ramey, W. Orville	Cincinnati	Lt. (j.g.) U.S.N.
Ramsayer, Herbert Perry	Canton	Capt., U.S.A.
Randell, Asher	Youngstown	Capt., U.S.A.
Rankin, Thomas J.	Oxford	Major, U.S.A.
Rardin, Thomas E.	Columbus	1st Lt., U.S.A.
Raskowski, A. T.	Brunswick	Capt., U.S.A.
Rath, Albert E.	Wooster	1st Lt., U.S.A.
Ravitz, Samuel F.	Gallipolis	Capt., U.S.A.
Rawers, Clarence B.	Bergholz	Capt., U.S.A.
Rayman, Lawrence	Toledo	1st Lt., U.S.A.
Raymond, Cecil A.	Barberton	Capt., U.S.A.
Read, John T.	Columbus	1st Lt., U.S.A.
Read, Wm. A.	Cleveland	Major, U.S.A.
Reading, Paul E.	Painesville	1st Lt., U.S.A.
Reading, Robert A.	Cleveland	Lt. Comdr., U.S.N.
Rector, L. E.	Akron	Lt., U.S.N.
Reed, Howard W.	Akron	Lt. Comdr., U.S.N.
Reed, Myron S.	Mansfield	1st Lt., U.S.A.
Reese, W. A.	Middletown	Major, U.S.A.
Reeves, James R.	Columbus	Capt., U.S.A.
Regan, Wm. Leo	Wilmington	Capt., U.S.A.
Rehbock, Donald J.	Cleveland	Capt., U.S.A.
Rehm, Ernest D.	Toledo	1st Lt., U.S.A.
Reich, Roland A.	Centerville	1st Lt., U.S.A.
Reiheld, Robert E.	Loundonville	1st Lt., U.S.A.
Renner, Geo.	Cincinnati	Major, U.S.A.
Renner, John A.	Youngstown	Lt., U.S.N.
Reno, Edward C.	Canton	Capt., U.S.A.
Reps, Dewey H.	Cincinnati	Major, U.S.A.
Rheingold, Jack J.	Cincinnati	1st Lt., U.S.A.
Rhiel, James I.	Eaton	1st Lt., U.S.A.
Rhodes, William M.	Columbus	1st Lt., U.S.A.
Rian, Carlos D.	Massillon	Capt., U.S.A.
Rice, F. A.	Cleveland	Lt. Col., U.S.A.
Rice, Milo B.	Pandora	1st Lt., U.S.A.
Richards, Charles Emmett	Cleveland Hgts.	1st Lt., U.S.A.
Richards, Robert R.	Lakewood	1st Lt., U.S.A.
Ridgeway, Joseph A.	Columbus	Capt., U.S.A.
Riebel, John A.	Ashland	Capt., U.S.A.
Riemer, Harry J.	Cleveland Heights	Capt., U.S.A.
Rilling, R. S.	Findlay	Major, U.S.A.
Ringelman, Norbert	Cincinnati	1st Lt., U.S.A.
Risley, Clarence T.	Conneaut	Capt., U.S.A.
Rivers, D. C.	Cincinnati	Capt., U.S.A.
Roach, Wm. L.	North College Hill	Capt., U.S.A.
Roback, Harry N.	Cuyahoga Falls	Major, U.S.A.
Robart, W. C.	Akron	Capt., U.S.A.
Robben, Francis J.	Bridgeport	1st Lt., U.S.A.
Roberts, David A.	Dayton	1st Lt., U.S.A.
Roberts, John L.	Toledo	Lt. Comdr., U.S.N.
Robertson, Alexander D.	Willard	1st Lt., U.S.A.
Robertson, Jas. E.	Cleveland	1st Lt., U.S.A.
Robinson, Edward L.	Xenia	1st Lt., U.S.A.
Robinson, H. A.	Elyria	1st Lt., U.S.A.
Robinson, Harry H.	Cleveland	Capt., U.S.A.
Rockwern, Samuel S.	Cincinnati	Capt., U.S.A.
Rodabaugh, Galon S.	Basil	1st Lt., U.S.A.
Roden, Carl A.	Hamilton	1st Lt., U.S.A.
Rodenberg, Elmer J.	Columbus	Major, U.S.A.
Roenigk, Henry H.	Cleveland	1st Lt., U.S.A.
Roettig, Louis C.	Columbus	1st Lt., U.S.A.
Rogers, John A.	Youngstown	1st Lt., U.S.A.
Rohner, R. G.	Columbus	1st Lt., U.S.A.
Rohr, Lovell W.	Columbus	Capt., U.S.A.
Roller, Jay P.	Luckey	Capt., U.S.A.
Romoser, Wm. K.	Columbus	1st Lt., U.S.A.
Roof, Clyde S.	Cincinnati	Major, U.S.A.
Root, Harold Eastman	Bellevue	1st Lt., U.S.A.
Root, Joseph C.	Cleveland	Lt. Comdr., U.S.N.
Rose, Donald Lee	Dayton	Capt., U.S.A.
Rosenbaum, Jos. G.	Brecksville	Capt., U.S.A.
Rosenbliett, S.	Chillicothe	1st Lt., U.S.A.
Rosenblum, Earl	Steubenville	Capt., U.S.A.
Rosenblum, Max H.	Steubenville	Capt., U.S.A.
Rosenblum, Morris S.	Youngstown	Capt., U.S.A.
Rosenow, Oscar F.	Columbus	1st Lt. U.S.A.
Ross, Alfred C.	Cincinnati	Capt., U.S.A.
Ross, Ervin S.	Cincinnati	Major, U.S.A.
Ross, Paul S.	Columbus	1st Lt., U.S.A.
Rossman, Phillip L.	Cleveland	1st Lt., U.S.A.
Rossmiller, Harold R.	Cleveland	1st Lt., U.S.A.
Roszmann, Marvin H.	Morral	1st Lt., U.S.A.
Roth, Carl Wm.	Columbus	1st Lt., U.S.A.
Roth, Dale E.	Newark	Capt., U.S.A.
Rothermich, Norman O.	Columbus	1st Lt., U.S.A.
Roush, Carl E.	Cincinnati	Capt., U.S.A.
Rowe, Peter	Cleveland	1st Lt., U.S.A.
Rowlands, Richard R.	Cincinnati	1st Lt., U.S.A.
Rubin, Herman G.	Akron	Capt., U.S.A.
Rubin, Nathan A.	Canton	1st Lt., U.S.A.
Rudolph, Jack	Columbus	Capt., U.S.A.
Rundell, Karl D.	Cleveland	1st Lt., U.S.A.
Runnels, Scott C.	Cleveland	Col., U.S.A.
Ruppersberg, Anthony	Columbus	Major, U.S.A.
Rusk, Ross P.	Cadiz	1st Lt., U.S.A.
Rusoff, M. B.	Columbus	1st Lt., U.S.A.
Russell, John M.	Youngstown	Capt., U.S.A.
Russell, Wm. E.	Genoa	1st Lt., U.S.A.
Russin, Lester	Cincinnati	Capt., U.S.A.
Ryan, E. J.	Cleveland	Lt. (j.g.) U.S.N.
Ryan, James Edward	Kelleys Island	1st Lt., U.S.A.
Ryan, Wm. J.	Akron	1st Lt., U.S.A.
Sacheroff, Louis	Lakewood	Capt., U.S.A.
Sachs, E. W.	Dayton	1st Lt., U.S.A.
Sackett, Geo. L.	Shaker Heights	Major, U.S.A.
Sadugor, Marvin Gerald	Cleveland	Capt., U.S.A.
Sage, Harry M.	Columbus	Lt. Comdr., U.S.N.
Sagebiel, James L.	Dayton	Lt., U.S.N.
Sailer, Seaton	Cincinnati	Major, U.S.A.
Salsbery, Otto Howard	Norwood	1st Lt., U.S.A.
Sancetta, Salvator M.	Cleveland	1st Lt., U.S.A.
Sanders, Edw. W.	Bellevue	1st Lt., U.S.A.
Sanders, John H.	Rocky River	1st Lt., U.S.A.
Sanderson, George	Wauseon	1st Lt., U.S.A.
Santurello, Thomas D.	Columbus	Major, U.S.A.
Sating, Robert J.	Cleveland Heights	1st Lt., U.S.A.
Sauer, Richard T.	Dayton	Capt., U.S.A.
Sauvageot, J. P.	Akron	Capt., U.S.A.
Sawan, E. A.	Akron	1st Lt., U.S.A.
Sawyer, Benjamin	North Star	1st Lt., U.S.A.
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OUR JOB

By THOMAS L. LUZIER

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At no time in our history has there been a greater need for confidence; confidence in our leaders, in our armed forces, in our physical and spiritual resources, in ourselves—confidence in all of these forces working together towards Victory, towards the preservation of those ideals and practices of liberty, justice, individualism and decency which are essential to our way of life, to our fundamental heritage.

Let those of us who for one reason or another cannot serve with the armed forces give as much of our time as possible to Civilian Defense, as much of our money as possible to the buying of War Bonds and Stamps, and every vestige of our national spirit, pride, determination and courage to the winning of the war. That is our job!

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Wagner, Gordon T.	East Cleveland	1st Lt., U.S.A.
Wagner, John L.	New London	1st Lt., U.S.A.
Wagner, R. L.	Portsmouth	Capt., U.S.A.
Wahl, Robert Henry	Dayton	1st Lt., U.S.A.
Wales, Craig C.	Youngstown	1st Lt., U.S.A.
Walker, Glenn H.	Woodville	Capt., U.S.A.
Walker, John M.	Dayton	Capt., U.S.A.
Wallace, Ervin B.	Columbus	Capt., U.S.A.
Waltz, H. D.	Sandusky	Major, U.S.A.
Walzer, Joseph	Cleveland Hights	1st Lt., U.S.A.
Walzer, Leo	Cleveland	Capt., U.S.A.
Ward, Charles F.	Cleveland	Lt., U.S.N.
Ward, David P.	Pemberville	1st Lt., U.S.A.
Ward, Harold Wheeler	Columbus	Capt., U.S.A.
Ward, W. R.	Middletown	1st Lt., U.S.A.
Warm, Herbert	Hamilton	Lt., U.S.N.
Warner, C. F.	Cincinnati	1st Lt., U.S.A.
Warner, Frank M.	Barberton	Capt., U.S.A.
Wartman, W. B.	Cleveland	Major, U.S.A.
Waters, Wm. I.	Dayton	Capt., U.S.A.
Watson, Geo. B.	Columbus	Capt., U.S.A.
Watson, Thomas W.	Wayne	1st Lt., U.S.A.
Weaver, Thomas, Jr.	Cincinnati	Capt., U.S.A.
Webster, Graham T.	Cleveland	Capt., U.S.A.
Weckesser, E. C.	Cleveland	Capt., U.S.A.
Wedemeyer, Marlin R.	Oak Hill	1st Lt., U.S.A.
Weil, Alven M.	Akron	Capt., U.S.A.
Weinberg, Norman H.	Cincinnati	1st Lt., U.S.A.
Weinblatt, Morris	Toledo	1st Lt., U.S.A.
Weinrich, Robert Joseph	Massillon	Capt., U.S.A.
Weir, David R.	Cleveland	Capt., U.S.A.
Weiser, Richard W.	Cincinnati	Capt., U.S.A.
Weismann, C. J.	Cincinnati	1st Lt., U.S.A.
Weiss, Adam F.	Marietta	Capt., U.S.A.
Weiss, Leo	Toledo	1st Lt., U.S.A.
Weiss, Louis L.	Canton	1st Lt., U.S.A.
Weiss, Morris	Cleveland	1st Lt., U.S.A.
Weitz, Myron A.	Cleveland	Major, U.S.A.
Welch, Brent A.	Sidney	Capt., U.S.A.
Welch, Jack H.	Columbus	1st Lt., U.S.A.
Wellmeier, Hugh	Piqua	Major, U.S.A.
Wells, Jay R.	Cleveland	1st Lt., U.S.A.
Wells, Wm. D.	Milford	1st Lt., U.S.A.
Welter, John A.	Youngstown	1st Lt., U.S.A.
Wenzinger, Harold J.	Defiance	1st Lt., U.S.A.
Werley, L. H.	Canton	Capt., U.S.A.
Werner, Marshall R.	Akron	1st Lt., U.S.A.
Werner, Merrill	Dayton	1st Lt., U.S.A.
Wertheimer, J. I.	Painesville	1st Lt., U.S.A.
Wertheimer, Lee C.	Cincinnati	1st Lt., U.S.A.
Westbrook, E. R.	Warren	1st Lt., U.S.A.
Wetzel, Ralph E.	Cuyahoga Falls	Lt., U.S.N.
Wharram, K. J.	Springfield	Lt., (j.g.) U.S.N.
Wharton, Joseph E.	Athens	1st Lt., U.S.A.
Wharton, Ralph E.	Mansfield	1st Lt., U.S.A.
Wheeler, Ward H.	Columbus	Capt., U.S.A.
Wheeler, Wm. W.	Cleveland	1st Lt., U.S.A.
Wherley, Harold Fredk.	Coshocton	Capt., U.S.A.
Whitacre, Daniel J.	Columbus	Capt., U.S.A.
Whitacre, J. F.	Toledo	1st Lt., U.S.A.
Whitehouse, S. W.	Cincinnati	1st Lt., U.S.A.
Whitman, Jos. J.	Cleveland	Major, U.S.A.
Widrich, Jack	Cadiz	1st Lt., U.S.A.
Widzer, Ben	Cleveland	1st Lt., U.S.A.
Wiessinger, Russell L.	Sidney	1st Lt., U.S.A.
Wilcox, Abbott Y., Jr.	Cincinnati	Capt., U.S.A.
Wilcoxon, Geo. M.	Alliance	Capt., U.S.A.
Wilderom, Morris	Medina	Capt., U.S.A.
Wilkes, J. B.	Columbus	1st Lt., U.S.A.
Wilkinson, Herman Edwin	Van Wert	Major, U.S.A.
Williams, Foster M.	Cincinnati	Capt., U.S.A.
Williams, Geo. J.	Cleveland	1st Lt., U.S.A.
Williams, Guy H., Jr.	Macedonia	Lt. Comdr., U.S.N.
Williams, John A.	Cincinnati	1st Lt., U.S.A.
Williams, J. R.	Eaton	1st Lt., U.S.A.
Williams, Lester L.	Mt. Vernon	1st Lt., U.S.A.
Williams, Robert Edw.	Barberton	Capt., U.S.A.
Williamson, Harold A.	Akron	1st Lt., U.S.A.
Williard, Nicholas	Tiffin	Capt., U.S.A.
Williger, I. F.	Osborn	Capt., U.S.A.
Wills, Benjamin F.	McArthur	Capt., U.S.A.
Willis, W. H.	Painesville	Capt., U.S.A.
Wilson, Gerald Newton	Columbus	1st Lt., U.S.A.
Wilson, Judson D.	Columbus	Lt. Comdr., U.S.N.
Wilson, Olin G.	Canton	Capt., U.S.A.
Wilson, Rex H.	Akron	Capt., U.S.A.
Wilson, Robert M.	Gallipolis	1st Lt., U.S.A.
Wilson, Sloan J.	Columbus	Major, U.S.A.
Wilson, Stewart M.	Columbus	Capt., U.S.A.
Wine, Chas. R.	Dayton	Capt., U.S.A.
Winston, Paul B.	Cincinnati	1st Lt., U.S.A.
Winter, Sherl J.	Dayton	Lt. Comdr., U.S.N.
Wirtz, R. E.	Canton	1st Lt., U.S.A.
Wiseman, George, Jr.	Amherst	Lt., U.S.N.
Witwer, R. G.	Cleveland Heights	Lt., U.S.N.
Woldman, Edw. E.	South Euclid	Major, U.S.A.
Wolf, Robert E.	Uhrichsville	1st Lt. U.S.A.
Wolfe, Clement V.	Columbus	Capt., U.S.A.
Wolfe, Rowland D.	Columbus	Lt. Col., U.S.A.
Wolford, Robert W.	Mansfield	1st Lt., U.S.A.
Wolfstein, James S.	Cleveland	Major, U.S.A.
Wolpaw, B. J.	Cleveland	Lt. Comdr., U.S.N.
Wolpaw, Ralph	Cleveland	Capt., U.S.A.
Wolpaw, Sidney Elmer	Cleveland Hgts	Capt., U.S.A.
Wood, Benjamin Joseph	Cleveland	1st Lt., U.S.A.
Wood, Cyrus R.	Port Clinton	Capt., U.S.A.
Wood, G. Howard	Leesburg	Capt., U.S.A.
Woolpert, Oram C.	Columbus	Major, U.S.A.
Worstell, Henry P.	Columbus	Lt. Comdr., U.S.N.
Wright, Herbert B.	Cleveland	Major, U.S.A.
Wright, J. W.	Cincinnati	Capt., U.S.A.
Wright, Orville M.	Dayton	Lt. (j.g.) U.S.N.
Wright, Robert N.	Wooster	Capt., U.S.A.
Wyker, Albertus C.	Columbus	1st Lt., U.S.A.
Wynsen, Henry James	Youngstown	1st Lt., U.S.A.
Yasinow, Aaron B.	Cleveland	Capt., U.S.A.
Yaw, Owen F.	Cincinnati	Capt., U.S.A.

(Continued on page 974)

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Name	City	Rank
Yeager, Floyd D.	Marion	Capt., U.S.A.
Yeip, Melvin F.	Cleveland	Lt., U.S.N.
Yinger, S. C.	Springfield	Major, U.S.A.
Yingling, Walter E.	Lima	Capt., U.S.A.
Yordy, P. L.	Dayton	Lt. Comdr., U.S.N.
York, Dillard Bennett, Jr.	Columbus	1st Lt., U.S.A.
York, Jack M.	Painesville	Capt., U.S.A.
Yosper, David	Gallipolis	1st Lt., U.S.A.
Yost, Orin R.	Akron	Capt., U.S.A.
Young, Edward B.	Lima	1st Lt., U.S.A.
Young, John W.	Empire	Major, U.S.A.
Yurick, Edward Andrew	Cleveland	Capt., U.S.A.
Zeiders, Glenn W.	Canton	Capt., U.S.A.
Zeiger, Michael Raymond	Cleveland Hgts.	Capt., U.S.A.
Zeigler, Harold C.	Toledo	1st Lt., U.S.A.
Zeithaml, C. E.	Cleveland	1st Lt., U.S.A.
Zeligs, Meyer A.	Cincinnati	Lt., U.S.N.
Zeller, Ross M.	Greenville	1st Lt., U.S.A.
Zeno, Ross	Akron	Capt., U.S.A.
Zeve, Herman S.	Youngstown	Lt. Comdr., U.S.N.
Zimmerman, Edw. A.	Dayton	Capt., U.S.A.
Zipf, Robert E.	Dayton	1st Lt., U.S.A.
Zollett, Philip B.	Cleveland	1st Lt., U.S.A.
Zollinger, R. W.	Columbus	Capt., U.S.A.
Zuck, Theodore T.	Cleveland	Major, U.S.A.
Zucker, Ralph L.	Cincinnati	1st Lt., U.S.A.
Zupanec, Ralph	Cleveland	Lt., U.S.N.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 2027 Ohio physicians in the armed forces as of September 23 by counties. This list is unofficial. If there are errors in the tabulations *The Journal* would appreciate receiving corrections:

Adams	2	Guernsey	5	Muskingum	7
Allen	24	Hamilton	246	Noble	1
Ashland	9	Hancock	11	Ottawa	8
Ashtabula	16	Hardin	6	Paulding	2
Athens	10	Harrison	4	Perry	4
Auglaize	5	Henry	1	Pickaway	3
Belmont	8	Highland	6	Pike	1
Brown	4	Hocking	3	Portage	2
Butler	22	Holmes	2	Preble	7
Carroll	1	Huron	12	Putnam	5
Champaign	8	Jackson	1	Richland	35
Clark	27	Jefferson	22	Ross	14
Clermont	7	Knox	11	Sandusky	9
Clinton	4	Lake	15	Scioto	11
Columbiana	8	Lawrence	7	Seneca	8
Coshocton	3	Licking	15	Shelby	7
Crawford	7	Logan	7	Stark	72
Cuyahoga	490	Lorain	26	Summit	109
Darke	6	Lucas	127	Trumbull	26
Defiance	3	Madison	6	Tuscarawas	15
Delaware	5	Mahoning	80	Union	1
Erie	9	Marion	13	Van Wert	9
Fairfield	5	Medina	9	Vinton	2
Fayette	2	Meigs	1	Warren	2
Franklin	184	Mercer	5	Washington	5
Fulton	5	Miami	9	Wayne	9
Gallia	6	Monroe	2	Williams	6
Geauga	3	Montgomery	91	Wood	10
Greene	8	Morgan	1	Wyandot	2

Total........................2027

Painesville—Dr. B. Spencer Park, recently commissioned a Lieutenant-Commander in the U. S. Navy, was guest of honor at a farewell dinner attended by over 200 civilian defense workers. Dr. Park was chief of the city's civilian defense medical unit.

Troy—Dr. Kurt C. Becker, health commissioner of Troy and Miami County, has resigned to enter private practice.

Columbus—His 50 years in the practice of medicine were discussed by Dr. A. A. Peasley at a meeting of the Mercator Club.

Zanesville—Dr. Mark D. Godfrey, Columbus, told of his experiences in Russia and the Middle East at a meeting of the Rotary Club.

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In Memoriam

James L. Adams, M.D., Barberton; State University of Iowa College of Medicine, 1929; age 37; died August 23, following an automobile collision near Wauseon. Dr. Adams had practiced in Barberton for four years. His widow and a son survive.

Uriah Alexander Cooke, M.D., Sylvania; Toledo Medical College, 1897; aged 72; died August 8. Dr. Cooke practiced in Sylvania for 45 years. Active in community affairs, he was president of the Sylvania Savings Bank and a member of the Masonic Order and the Methodist Church. Surviving are his widow, a daughter, two sisters and a brother.

Jerrard W. Coombs, M.D., Camden; St. Louis College of Physicians and Surgeons, 1896; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 6. Dr. Coombs practiced in Preble County for more than 40 years. Surviving are his widow, two sons and two daughters, one of whom is Dr. Vera Coombs Iber, Hamilton.

Anson Perry Howland, M.D., Cleveland; Western Reserve University School of Medicine, 1896; aged 72; died August 28. A native of Jefferson, Dr. Howland practiced in Cleveland for many years. His widow, a son, a daughter and two brothers survive.

Frank Joseph Raterman, M.D., Fort Loramie; Ohio Medical University, Columbus, 1907; aged 64; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 27. Dr. Raterman had practiced in Fort Loramie and Shelby County for 35 years. He was an active participant in community affairs, and had been a member of the local school board. His widow, three daughters and a son survive.

William Roy Riddell, M.D., Jackson University of Toronto Faculty of Medicine, 1922; aged 45; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 16, following an automobile accident. Dr. Riddell had practiced in Jackson County for 15 years. He was a member of the Rotary Club, Masonic Order, B.P.O.E., and the Presbyterian Church. His widow, a son and a daughter survive.

David W. Shellabarger, M.D., Potsdam; Medical College of Ohio, Cincinnati, 1892; aged 75; member of the Ohio State Medical Association and the American Medical Association; died August 18. Miami County's oldest practicing physician, Dr. Shellabarger practiced there for nearly 50 years. His widow, a daughter and three brothers survive.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

An all-day program was arranged for the regular meeting of the Adams County Medical Society held in West Union at the health department offices Sept. 9. Following an initial business session in the morning, Dr. Sam Clark, Cherry Fork, discussed "Selective Service Experiences", and Dr. S. B. Sonkin, West Union, talked on "Nasal Hemorrhage". There was a noon luncheon at Legion Hall, at which members of the society were guests of the staff of the County Health Department. In the afternoon session Dr. Cecil Striker, Cincinnati, discussed diabetes and some of the nationwide efforts for controlling it, and Dr. L. Howard Schriver, Cincinnati, talked about Civilian Defense organizations and problems.—Bulletin.

BUTLER

Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Committee, talked about "The Care of the Civilian" at the regular meeting of the Butler County Medical Society at the Middletown Hospital Sept. 24.—Bulletin.

HAMILTON

At the first regular meeting of the Cincinnati Academy of Medicine for the 1942-43 season, held Sept. 29 at Academy offices, program features were the address of the retiring president, Dr. John H. Skavlem, and the incoming president, Dr. Ralph G. Carothers. New officers were installed, and standing committees submitted annual reports.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MIAMI

A discussion of the effects of the war on civilian medical practice in their communities occupied members of the Miami County Medical Society at its regular meeting Sept. 4 at the Nurses' Home of Piqua Memorial Hospital, Piqua. For the balance of the program a mo-

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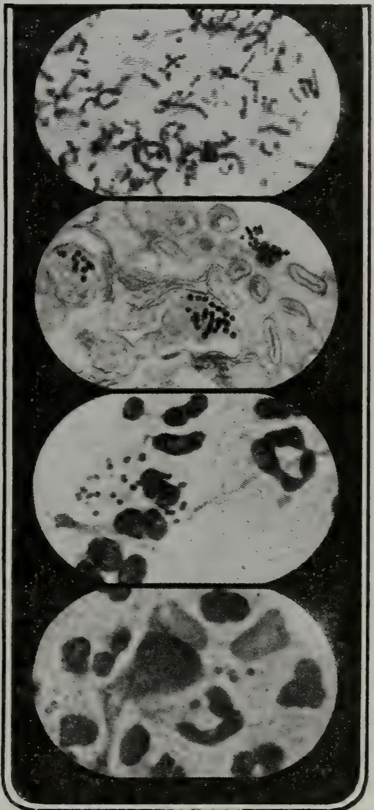

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tion picture entitled "Appendicitis in Childhood" was shown through the courtesy of the Mead Johnson Co. A dinner followed the meeting.—G. A. Woodhouse, M.D., Secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

AUGLAIZE

"X-Ray in Obstetrics" was the topic of Dr. D. W. English, Lima, when he addressed the Auglaize County Medical Society at its first regular fall meeting Sept. 10 in the Courthouse at Wapakoneta.—Charles C. Berlin, M.D., Secy.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

WOOD

Members of the Wood County Medical Society leaving for military service were feted at a meeting of the society in their honor Sept. 11 at the Falcon's Nest on Bowling Green University Campus. Guests of honor were Dr. A. R. Janey, North Baltimore, Dr. Hermann Mannhardt, Bowling Green, Dr. Ray Whitehead, Bowling Green, and Dr. N. K. Foley, Perrysburg. Attorney Ray D. Avery served as toastmaster and recounted experiences of World War I. Personal adventures in that conflict were also recounted by Dr. Frank Boyle, Bowling Green, Dr. H. J. Powell, Bowling Green, Dr. H. J. Johnston, Tontogany, and Dr. Irving Kievet, Custar. Doctor Mannhardt responded for the new medical officers.

Dr. E. H. Mercer, Bowling Green, was named secretary to fill the unexpired term of Doctor Mannhardt.—D. R. Barr, M.D., *Journal* Correspondent.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The annual outing and golf tournament of the Cleveland Academy of Medicine was held Sept. 2 at the Cleveland Country Club. Following the golf contest, there was a dinner at which time prizes for the golfers and draw prizes were awarded.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, discussed "Nutrition and the War" at the opening fall meeting of the

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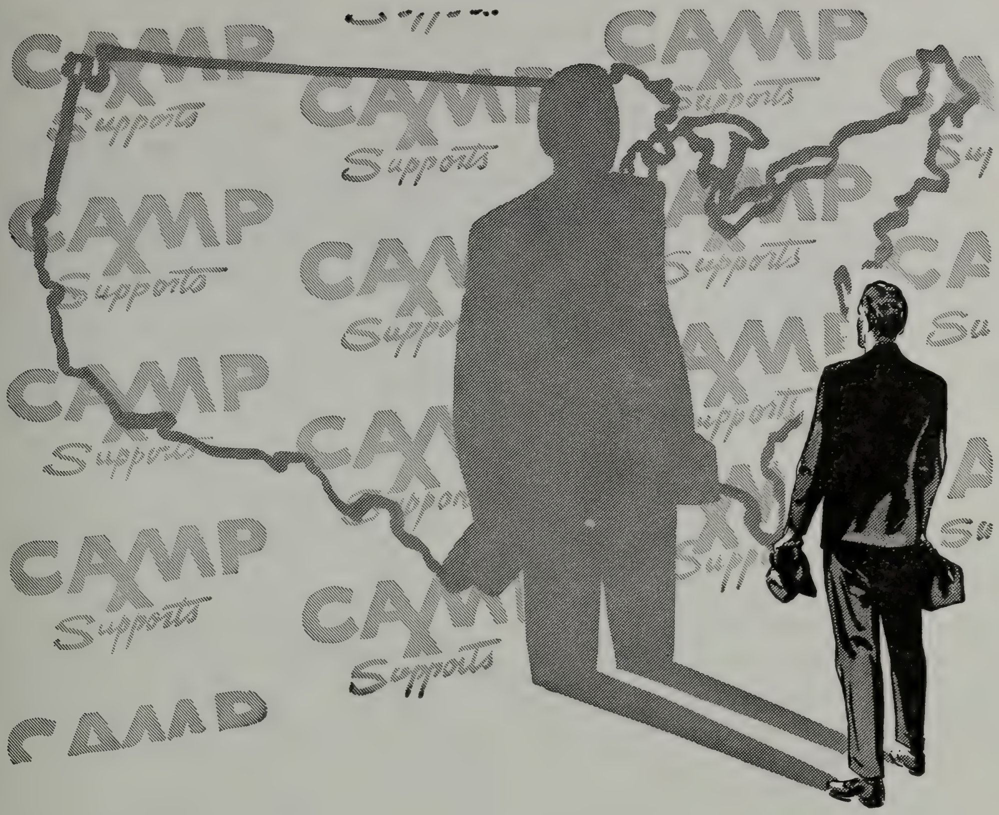

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Mahoning County Medical Society Sept. 15 at the Youngstown Club. Members of the Women's Auxiliary to the society, the County Nutrition Council, the local Nurses Association, the county Red Cross Chapter, and interested members of the public attended.—Bulletin.

PORTAGE

"Poliomyelitis and its Modern Treatment" was the subject discussed by Dr. James G. Kramer, Akron, guest speaker at the regular meeting of the Portage County Medical Society held Sept. 3 at Robinson Memorial Hospital, Ravenna.—Emily Widdecombe, M.D., Secretary.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

TUSCARAWAS

Regular monthly meeting of the Tuscarawas County Medical Society was held Sept. 10 at Hotel Reeves, New Philadelphia. Dr. David H. Allen, Dover, presented an illustrated discussion of elementary electrocardiography.

The society's Women's Auxiliary met concurrently at the home of Dr. and Mrs. C. J. Miller, New Philadelphia, where a Miss Drake, representing the Ohio Power Co., gave a talk on nutrition.—D. M. Ceramella, M.D., Secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. Warren G. Harding, Columbus, who returned to the United States recently after practicing medicine in Australia, described that country and its people at the meeting of the Guernsey County Medical Society held at the Berwick Hotel, Cambridge, Aug. 20. Members of the Guernsey County Dental Association were guests.—News clipping.

LICKING

Experiences in England as director of the American Hospital at Oxford were recounted by Dr. E. Harlan Wilson, Columbus, at the meeting of the Licking County Medical Society Aug. 20 at the Granville Inn, Granville.—News clipping.

MUSKINGUM

Doctor Wilson was also the speaker at the regular meeting of the Muskingum County Academy of Medicine held Sept. 9 at the Zanesville University Club.—Beatrice T. Hagen, M.D., Secretary.

Tenth District

(COUNCILOR: GILBERT MICKLETHWAITE, M.D., PORTSMOUTH)

LAWRENCE

Plans for developing a local medical library are being drawn up by a special committee of the Lawrence County Medical Society which consists of Dr. V. V. Smith, Dr. H. S. Allen, Dr. C. A. Casey, and Dr. Heber Johnson.—News clipping.

Ninth District

(COUNCILOR: GEORGE T. HARDING, III, M. D. COLUMBUS)

FRANKLIN

"Some Clinical Aspects of Military Medicine" was the theme of the Columbus Academy of Medicine's regular meeting Sept. 14 at the Columbus Gallery of Fine Arts. Speakers on the

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* N. N. R. 1941, p. 328.

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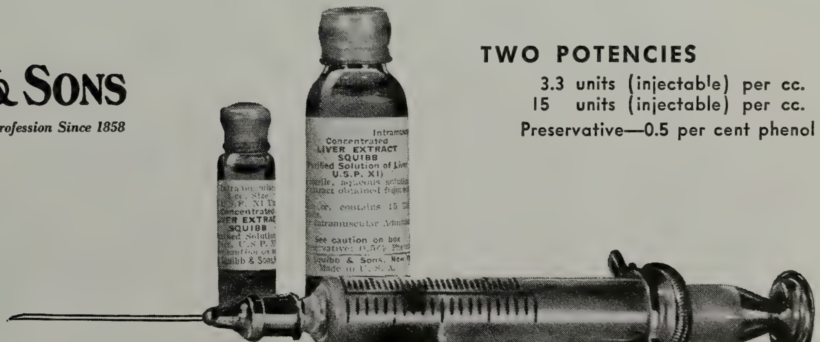

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program were Capt. Reuben B. Hoover, Capt. John E. Brown, Jr., and Maj. Harold F. Shiro, all of the Army Medical Corps.

On Sept. 21, meeting at the same place, members of the Academy heard Dr. Harlan Wilson detail his English experiences.—Bulletin.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

Dr. Edward J. McCormick, Toledo, president of the Ohio State Medical Association delivered a memorial address for the late Dr. Frederick Valloyd Adair at the regular meeting of the Lorain County Medical Society Sept. 8 at the Lorain Country Club. A dinner preceded the meeting.—Dr. L. H. Trufant, Secretary.

Coming Meetings

American College of Physicians, Philadelphia, April 13-16.

American College of Surgeons, Cleveland, Nov. 17-20.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 11-14.

American Academy of Pediatrics, Chicago, Nov. 4-7.

American Academy of Physical Medicine, Boston, Oct. 14-17.

American Hospital Association, St. Louis, Oct. 12-17.

American Public Health Association, St. Louis, Oct. 27-30.

Association of Military Surgeons of the United States, San Antonio, Texas, Nov. 5-7.

American Clinical and Climatological Association, Princeton, N. J., Oct. 12-14.

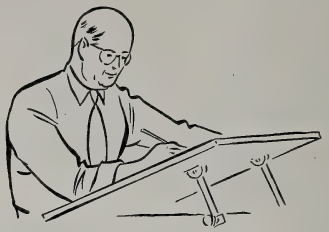
Fifth Annual Forum on Allergy, Cleveland, Jan. 9-10, 1943.

McConnellsville—Dr. A. A. Tombaugh has been appointed superintendent of the Pleasantview Sanatorium, Amherst, succeeding Dr. Dean H. Minnis, now a Captain in the Medical Corps, Army of the United States.

Oberlin—Dr. Edna Watt Schrick has resigned as assistant physician of Oberlin College to take over the practice of Dr. Anthony Piraino, commissioned a First Lieutenant in the Medical Corps of the Army Air Force.

Mt. Gilead—Dr. Frank M. Hartsook, Morrow County health commissioner, recently completed a six-weeks short course in public health at the University of Michigan.

Bryan—Dr. Gerald E. Cheadle is the new local health commissioner.



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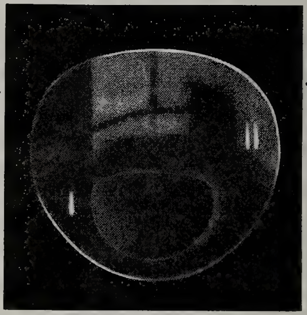

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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The Physician's Bookshelf

War Medicine, a Symposium by Winfield Scott Pugh, M.D., U.S.N., Retired, ($7.50, *F. Hubner & Co., Inc., New York, N. Y., for the Philosophical Library, Inc., 15 East 40 Street, New York, N. Y.)* is a collection of an interesting group of papers requiring 553 pages for their presentation on many of the important aspects of military medicine, from allergy and painful feet to brain injuries. A very timely and worthwhile volume.

Eileen's Love Letters, by Thomas I. Reilly, M.D. ($1.50, *Meador Publishing Co., Boston,* Mass.) is a fascinating story of old Ireland, the land of the doctor's boyhood, presenting very dramatically the injustices of the cruel landlord.

Advances In Internal Medicine, Vol. 1, Edited by J. Murray Steele ($4.50, *Interscience Publishers, Inc., 215 Fourth Avenue, New York, N. Y.)* represents an attempt to present practical, informal summaries of progress in special parts of this broad field. The style is simple and intelligible to any physician, and the papers for the most part represent the opinions of a particular individual who has made contributions to the subject under discussion. This book and the principle on which it is built appeals very much to your reviewer and he hopes that it receives warm welcome by the American Medical Profession as a partial solution of the problem of keeping up to date.

The Hand, Its Disabilities and Diseases by C. W. Cutler, Jr., M.D. ($7.50, *W. B. Saunders Co., Philadelphia, Pa.)* covers not only injuries and pyogenic infections, but also other diseases, deformities and disorders, making the book helpful for every physician.

Emergency Care by Marie A. Wooders, R.N., and Donald A. Curtis, M.D. *(F. A. Davis Company, Philadelphia, Pa.)* is a nurse's manual for service in both military and civilian emergencies, and therefore should have a very wide appeal in these war-torn days.

International Journal of Sex-Economy and Orgone-Research, Official Organ of the International Institute for Sex-Economy and Orgone Research, Director: Wilhelm Reich, M.D., Editor: Theodore P. Wolfe, M.D., ($3.00 *per year, Orgone Institute Press, 400 East 57th Street, New York City, N. Y.)* is a new magazine reporting in this new field of research.

Clinics by George Morris Piersol, M.D. ($12.00 *per year by subscription; single copy, $2.00, bimonthly, J. B. Lippincott Company, Philadelphia, Pa.)* represents a summation of the publisher's experience of many years. It represents an attempt to report good work wherever such reports

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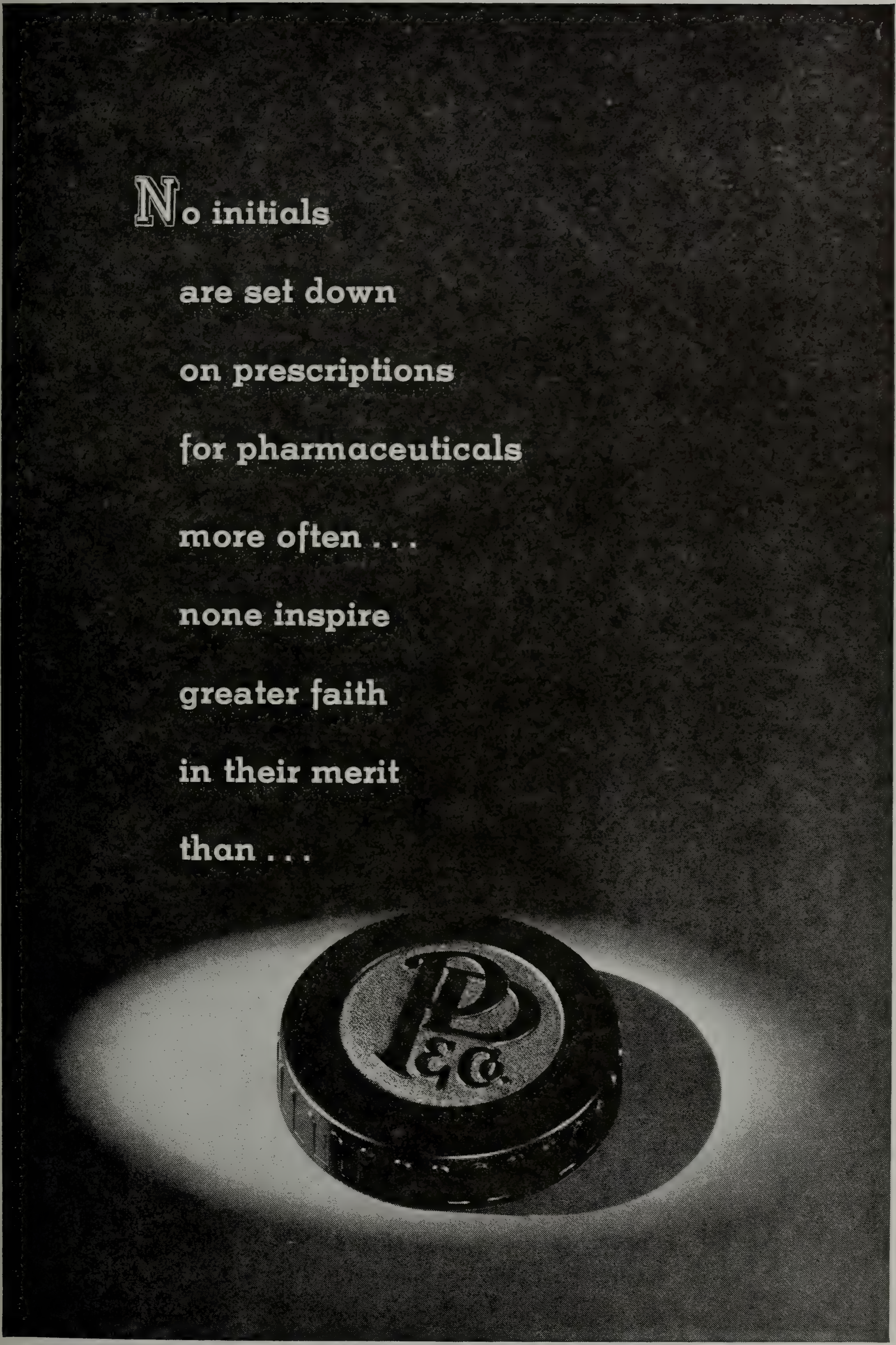

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First Aid to the Injured and Sick, by Warwick and Tunstall, ($2.00. *Eighteenth Edition. The Williams and Wilkins Company, Baltimore)* edited by Norman Hammer, M.R.C.S., is an advanced handbook, and is standard in Britain for first-aid instructors and senior first-aid workers. The present edition, fully revised, speaks for itself.

Physicians' Reference Book of Emergency Medical Service, (prepared and published by *E. R. Squibb & Sons, New York,)* is a compilation, chiefly from medical literature, presenting the practical experience and lessons acquired in handling civilian war casualties. This is a reference book on civilian defense compiled largely from British sources. It contains a wealth of material and should prove of great value.

Treatment of Syphilis, Artificial Fever Combined with Chemotherapy. It is supplement No. 16 to Venereal Disease Information of the U. S. Public Health Service and is a critical review by Drs. Walter Simpson, Worley Kendell and Donald Rose of the Kettering Institute in Dayton, O.

A New Approach to Old Diseases by Otto Meyer ($2.00, *Savoy Publishing Company, 63 Park Row, New York City)* presents the thesis that the missing link which makes the theory of social infection complete is a discovery that the focus is a phlebitis of the juglar vein upon which foundation he builds a ready solution for most chronic illnesses and all allergies.

Ohio Handbook for Civilian Mobilization in Education, Health and Welfare is an abstract of the proceedings of the Ohio Institute of Civilian Mobilization held at the Ohio State University March 26-28, 1942. A copy may be obtained by writing H. W. Nisonger, O.S.C.D., 101 N. High St., Columbus, Ohio.

The Function of the Orgasm, Sex, Economic Problems of Biology Energy, by Wilhelm Reich ($3.00, *Orgone Institute Press, 450 E. 57th St., New York City)* has been translated from the German manuscript by Theo. P. Wolfe, M.D. and is not a translation of the author's earlier book, "Die Funktione des Orgasmus". The volume describes the whole development of sex economy from psycho-analysis to orgone biophysics as it has taken place during the last 25 years. The book belongs in the library of all students of sex and psychology.

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Vol. 38 November, 1942 No. 11

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*
GEORGE H. SAVILLE, *News Editor*

Deficiency Diseases

Incidence at the Cincinnati General Hospital

M. A. BLANKENHORN, M.D.

IN that field of medical endeavor known as nutrition two very vexatious questions keep bobbing up—usually somewhat at the same time as though an answer to one would solve the other as well. The one seeks to know if there is widespread ill health in the United States in the form of malnutrition. The other question is, "Are deficiency diseases as rare as is indicated by the scattered and scanty medical records of incidence among the sick?"

At first sight one might expect, since both of these questions deal with matters of diet and the results of diet, that some single authority would find the answer. On closer looking it appears to me that neither question can be definitely answered until more facts are gathered and theories tested in the field of nutrition. It is apparent too that fact gathering is being done in two widely divergent parts of the field, in one by doctors who study disease and in another by nutritionists who study health. At the present these two groups seldom meet because each is a large and different field. Each field influences the other but regardless of all the progress and splendid accomplishment in both, the impatient medical profession must wait a bit for the answers. Therefore sweeping conclusions must wait and radical changes in dealing with the sick or in keeping well are to be accepted with patient skepticism. This standpat, business-as-usual attitude must not be taken as skepticism about the long overdue reforms to bring about the so-called American "good diet". That, to my mind, is fully accepted by up-to-date doctors and nutritionists alike, even if not by the food merchants.

The Author

- Dr. Bankenhorn, Cincinnati, Ohio, is a graduate of Western Reserve University School of Medicine, 1914; director of medical service, Cincinnati General Hospital; professor of medicine, University of Cincinnati College of Medicine.

Without knowing whether there is very much malnutrition in Ohio I urge the doctors of the state to promote the public health education program to the effect that the diet for adults be improved by enriched flour (either by milling process or by adding thiamine, nicotinic acid and riboflavin), by increasing the calcium and vitamin A intake by drinking milk, by enlarging the intake of B_2 complex by eating more meat and fresh vegetables and more vitamin C with fruit.

If there is malnutrition this program of education may help us be rid of it. If there is no malnutrition your patients will learn a lot about vitamins and minerals which very few people know and all should know. If they learned more about food they would probably spend less for self-medication. If the vitamin intake is set up higher than we can support in a long war an intelligent people can reduce its scale of living

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Read before the Second General Session, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28, 29 and 30, 1942.

with the minimal risk of health if it knows its vitamins.

Another great boon may come from such health education, namely, people may be able to give, when questioned, an intelligent account of their personal diet habits. I find now it is impossible to conclude from a patient's story that he must have this or that deficiency disease or that he cannot have such a disease. The most that can be learned is to suspect such a disease and then I must examine the suspect for signs and test him with tests. At the present time very few of the tests of blood and urine, etc., are precise enough for diagnosis. Therefore, careful examination and a trial by treatment must be made.

This now is the approved method, and physicians would be greatly helped if people generally did know more about food and food values. If our state department of health can spread a wide and deep layer of learning the doctors should be very grateful. I have every hope that this learning dispensed by the state will be useful in the kitchen and at the food counter.

DEFICIENCY DISEASES NOT RARE

Are deficiency diseases very common in Ohio and are doctors recognizing them? If I consult my own experience and hospital statistics I think one can say that deficiency diseases are not rare and that the doctors are finding many of the cases. We have very recently published in the J.A.M.A. a statistical report on incidence of pellagra.[1]

At Lakeside Hospital in Cleveland between the years 1931 to 1935 there were 113 patients diagnosed as typical pellagra, which was 1.5 per cent of all medical admissions at that time. Also at the Cincinnati General Hospital from 1935 to 1940 inclusive there were on the medical service 128 pellagrins or 0.95 per cent of all medical admissions.

This incidence is not greatly different from the incidence among hospital admissions at New Orleans, Baltimore or the Hillman Hospital of Birmingham, Alabama.

Pellagra is chosen here to indicate the prevalence of nutritional disorders not only because we have been interested in it and think we know how to recognize it but also because it is a multiple deficiency, in which not only nicotinic acid is deficient but also riboflavin and thiamine. It is often a severe disease as well and if not treated causes death.

In all the cases reported from these two Ohio hospitals the diagnosis was made by finding symmetrical dermatitis and glossitis as essential to diagnosis. (These records were all carefully reviewed by Doctor William Bean of the Cincinnati General Hospital and a uniform criterion of diagnosis was used.) They all were sick and none were subclinical or mild in their disease.

These were cases only and not deaths, but this can be compared with the reported deaths due to pellagra kindly given to me by Mr. H. C. Eader, Chief of Audits and Reports in the State Department of Health.

In 1935 there were 23 deaths
" 1936 " " 25 "
" 1937 " " 19 "
" 1938 " " 12 "
" 1939 " " 16 "
" 1940 " " 9 "

Deaths in six years, 104

This is by no means a rare disease. They were reported from 25 different counties scattered well over the state. The largest cities reported the most cases, almost in order of size, namely Cleveland, Cincinnati, Columbus, Toledo, Dayton and Youngstown.

I do not believe anyone can arrive at a worthwhile estimate of the incidence disease, for few of the pellagrins die. The fatality rate in Cincinnati since the advent of niacine is very low, about 6 per cent where pellagra is uncomplicated, and without knowing about complications in the reported deaths it would be unwise to say more about incidence than to say it is not rare.

During the past six years the State Department of Health has registered six deaths as due to beriberi, two only being from Cincinnati. I think we might call this a rare disease, but I believe that a few years ago we would mostly say it was an oriental disease that never occurs here.

Now what about other deficiency diseases in Ohio?

During a period of three and one-half years just passed, that is, from June, 1938, to January, 1942, which is the time our present indexing and filing system was in use, we have examined and diagnosed on the medical service 61 patients with multiple peripheral neuritis presumed to be due to thiamine deficiency and all but a few cured by diet and vitamin therapy. There were also in the same time of riboflavin deficiency five instances, of niacine deficiency 19, of pellagra 15, and scurvy two, of vitamin A deficiency two and of beriberi heart disease two. If now we add our 104 patients with cirrhosis of the liver, which we have many reasons to class as a deficiency, we have 210. After subtracting 14 which are duplicated because of multiple deficiencies, mainly pellagra with neuritis or cirrhosis, we have 196 among 9530 medical admissions, or slightly more than 2 per cent.

It should be clear at this point that very few patients were sent to hospital only for purposes of teaching or study. About 2 per cent of the sick who came through ordinary channels showed diagnostic physical signs of deficiency diseases.

In a few instances these signs of deficiency diseases developed while under treatment for varying lengths of time and with a variety of treatments. We believe that certain forms of treatment accelerate the onset of pellagra and beriberi. I am sure that the prolonged Sippy treatment for peptic ulcer causes scurvy, repeated glucose infusions bring out the symptoms of neuritis or else cause neuritis, and repeated catharsis causes pellagra to relapse and be worse in its dermatitis. These observations on the effects of unwise treatment may not be important numerically speaking, but such practice violates one of the honored rules of treatment, namely, to do no harm, and such should be mentioned.

INCIDENCE OF DEFICIENCY DISEASES

As to incidence of the deficiency diseases in Ohio the most I can say is that outspoken, frank clinical forms make up about 2 per cent of our hospital patients. It should be noted that this hospital service does not receive children, no psychiatric patients and none in late pregnancy.

As to subclinical forms we have no methods for diagnosis that are reliable, that is to say that our laboratory aids and various tests are not reliable enough to report. Of course, we treat with diets and synthetic vitamins a great many suspects, but we have faithfully avoided swelling the literature with subclinical diseases.

Let us look now at the deficiency diseases as found in the Cincinnati General Hospital in recent years and see them enough in detail to consider methods of diagnosis and treatment.

Pellagra—So many descriptions of this disease have been published from our department that with consent I will skip it, dwelling long enough only to explain our revised views of the meaning of its several symptoms, namely glossitis and neuritis. We regard pellagra as a disease due to the want of a mixture of things in the B_2 group. The trend is to break up the disease into a group of diseases, but pellagra in our estimate still has all its essential symptoms of glossitis, enteritis, dermatitis, and dementia, but also has an associated neuritis due to lack of B_1 (beriberi), sore lips (cheilosis) and ophthalmia due to lack of riboflavin, and often conjunctivitis due to vitamin A deficiency.

We think also that niacine deficiency may cause only glossitis in which we diagnose only the niacine deficiency. This works out that we diagnose pellagra only when symmetrical dermatitis and glossitis are seen together. If only glossitis, we call the disease niacine deficiency. This may be an unnatural classification, for ultimately full-blown pellagra may be seen, but to avoid the pitfalls of subclinical pellagra or incomplete pellagra or pellagra sine pellagra we stick to a system somewhat more precise, although cumbersome. This business of analizing the syndrome of pellagra into as many essential items as possible is important in understanding the disease and also in the treatment by specific drugs or therapeutic agents. It is not important when the treatment is accomplished mainly with food, or food enriched only with yeast. The recommendations for treatment which my associate, Doctor Spies, has always made are mainly the use of natural foods.

Pellagra in the Cincinnati General Hospital is many times secondary to other diseases. Doctor Bean is now preparing a report on the incidence of secondary pellagra from our own records and the records of others. This includes the cases at Birmingham. Almost every recognizable disease has been found so associated, but mainly the diseases that make people eat little or impair digestion and absorption.

In the order of frequency he found alimentary tract disease heads the list, any disease from broken jaws and toothache to strictures of the rectum. Infections were next, with pneumonia first and tuberculosis next. Pneumonia may head this list because pneumonia is so very common and because it increases metabolism and reduces food intake simultaneously. Heart disease was third, surgical diseases with operation fourth and cirrhosis fifth.

PELLAGRA IMPORTANT FACTOR IN FATALITY RATES

Secondary pellagra may be an important factor in fatality rates in various diseases. In the last three and a half years there were seven deaths from pellagra with complications and but one death from pellagra alone. In the cure and prevention of pellagra, food is more important than drugs, but many of the severe cases take food poorly and will die unless treated.

Niacine or niacine amide in 50 mg. doses every few hours up to one or even ten doses per day may within three days improve the patient so that feeding can be done. High protein diets are urged, supplemented with dry powdered brewer's yeast 30 gm. three times daily. Doctor Spies and Miss Jean Grant have published and shown in teaching films a method of suspending dry powdered yeast in water or milk with a flour shaker and an egg beater as the only implements. This sort of beverage if iced is acceptable to many patients who will drink things but will not eat. When the mouth is sore and vomiting frequent careful nursing is very important to successful treatment. If diarrhea is made worse by feeding, paregoric is indicated in generous doses.

We have made the diagnosis of niacine deficiency in 19 patients during the past three and a half years. We recognize that disorder as acute pellagrous glossitis which occurs in an individual who has eaten little for a long time or who may have eaten little during a short time of stress as in a fever or due to an operation. Often there is some complaint of burning of the tongue. The most important sign is undue redness of the tongue. The redness is seen as much redder than the other mucous membranes. When first seen only the tip and edges are overred. If the condition is not treated, it may be followed in a few days by more exaggerated redness and a spread to the entire tongue, palate and buccal mucous membranes. This condition was described by Doctor Spies and me in 1936 as alcoholic stomatitis before the use of niacine as a cure was known.[2] We regarded it then as a part of the pellagra syndrome and now call it niacine deficiency. The lesion is usually conspicuous and there is not much disagreement among examiners about the matter. The diagnosis is confirmed by the prompt fading out and return of normal color where treatment has been given for a few days only. As a disease entity this may not be very important. I think it is probably much more common than our recorded cases indicate and is important mainly as a sign that severe pellagra might be impending. Doctor Spies and his group have not been able to furnish our clinic with a reliable laboratory test for the diagnosis of this disease.

In the past three and a half years we have recognized five patients with signs of riboflavin deficiency as shown by angular cheilosis, an eruption at the corner of the mouth. This occurs like niacine deficiency in people who have been on poor diets; sometimes it occurs with pellagra. But the five recorded here were not associated with other deficiencies.

RIBOFLAVINE DISEASES ASSOCIATED WITH PELLAGRA

In the Nutrition Clinic at Birmingham riboflavin disease is often associated with pellagra and was, in fact, first found there as conjunctivitis[3]. This conjunctivitis is not a common complaint in Cincinnati General Hospital and the eye lesions are rare. In Birmingham Doctor Spies' associates use a slit lamp to examine the eyes of suspects,[4] but in Cincinnati the suspects are so few that we do not ask for the ophthalmologist's consultation very often.

There is also believed to be a tongue lesion due to ariboflavinosis, but this also is rare in Cincinnati. The tongue lesion is a diffuse glossitis with a peculiar magenta red spread over the entire organ. The papillae are flat and hard to see. The tongue is less red than seen in niacine disease and less slick than in pernicious anemia. I think the lesion is a distinct one but not common. We employ no laboratory tests for this disease. Treatment causes the lesions to disappear rapidly—a week or two—but not as rapidly as it does the tongue lesions of niacine disease. Five milligrams twice daily are recommended. I do not know how important this disease is—i.e., how serious the consequences may be of long and severe deficiency. In our clinic we regard this disease as a sign of worse to come if it is not corrected by a good diet.

NUTRITIONAL NEURITIS

We have made the diagnosis of nutritional neuritis 61 times in the last three and a half years. This does not count neuritis due to arsenic, lead or other known poisons such as jamaica ginger or neuritis known to be associated with infection, such as infectious neuronitis, of which there were 15 cases. The 61 patients did have multiple peripheral neuritis symmetrical in distribution, i.e., both feet or all four extremities, usually depending on the severity. It does include 11 diabetics and 21 with evidence of chronic alcoholism and pellagra.

We have not included any doubtful cases of neuritis or any suspected neuritis. Many of the patients were seen by consultants from the neurology service and some were admitted to that service, which is merged with the medical service in our hospital.

There may be controversy about the etiology but none about the fact of neuritis. In these patients the diagnosis is made by the complaint of numbness and tingling and sometimes pain. The examination shows hyperactive or reduced or absent reflexes, also sensory disturbances as hyperesthesia and anesthesia. Nineteen of 61 had motor paralysis as wrist drop or foot drop. Nearly all had lost weight and were on poor diets. Ten had complications as tuberculosis, lung abscess, bronchiectasis, pneumonia, cancer or heart disease. Fourteen had other obvious deficiency diseases as pellagra, beriberi heart disease and cirrhosis. None was pregnant nor in the postpartum state. None had thyrotoxicosis nor pernicious vomiting as the main cause of neuritis.

Eight of 61 died. In five there was a serious complication as tuberculosis 1, lung abscess 1, pneumonia 1, cancer 1, cerebral accident 1. All the rest got well or could be sent home improved. All of these patients were treated with generous diet and medicated with yeast and thiamine chloride. Where the signs were severe and the patient starved or otherwise enfeebled we used thiamine injections, 50 mg. intravenously daily, for a week or thereabouts.

We have not seen alarming reactions among any so treated. A few were very ill and reactions might be expected for a number of reasons, but we thought intravenous treatment was needed even though sensitization and reaction of shock is known to happen occasionally.

In recent times there has been controversy in medical literature about the commonness of neuritis. It is certainly a common disease in the Cincinnati General Hospital, and we claim no special skill in its diagnosis. Indeed, 19 of 61 had paralysis, and their crippled hands and feet could not escape observation. Others did have only minor complaints of numbness and burning of the feet, which led to neurological examination. Patients without paralysis recovered promptly on good diet, that is, within a few weeks—never in a few days. This mild type might escape diagnosis because it was a self-limited disease and not especially distressing.

Typical beriberi heart disease is indeed a bone of contention and a rare disease by our scheme of diagnosis. Doctor Spies has recorded only two cases in the Birmingham clinic and in Cincinnati there are but two.

We require the patient to have congestive failure with edema and peripheral neuritis—and to have him get well on thiamine treatment and to stay well. This requires that all other forms of heart disease and all other causes for edema be ruled out by a control period before thiamine is given, and that bed rest, digitalis and other diuretics have failed before thiamine be given. These are rigid terms and we suspect the disease many times but think we have proved it but twice. Laboratory tests for thiamine have not been used in this problem. We use some of the tests but they are too difficult and unreliable for the diagnosis of disease alone. Our practice, however, is to treat a great many suspects with drug and diet, but we have not found the way of evaluating such treatment or of diagnosing mild forms of beriberi or of diagnosing other forms of heart disease complicated by beriberi.

SCURVY A RARE DEFICIENCY DISEASE

Scurvy is a rare deficiency disease in Cincinnati or else we fail to find it. We have seen but two examples and both of these were severe, i.e., had large subcutaneous hemorrhages, painful joints, multiple petechiae, especially in the hair follicles of the legs, and bad bleeding gums. Both had been on Sippy diet for over a year without regard to vitamin C. Both had fairly good levels of vitamin C in the blood but both got well promptly on diet and vitamin C. My associate, Doctor Schiff, has tested numerous patients in the Gastric Clinic to search for subclinical scurvy as a cause of gastro-enteric bleeding[5]. His blood testing has not discovered many cases with mild scurvy—very few, in fact.

Vitamin A deficiency may be a very common disease in Cincinnati but we have recorded that diagnosis only twice in the past three and a half years and then it was recognized as a follicular keratosis, a well-known skin eruption. Both of these patients were sent to hospital for chronic diarrhea. They had no other manifest deficiency. Among many of our pellagra patients with neuritis and with cirrhosis we find this lesion follicular keratosis and suppose it is due to the want of vitamin A along with other things that are wanting. In fact, it is so common that we have stopped recording it as a separate entity save only when it exists alone. Because of this rather careless attitude of the service we have no reliable information on vitamin A. We have not used laboratory aids in this diagnosis because of the difficulty and uncertainty of tests. Vitamin A may be an important item in matters of health but in the medical care of adults we find this diagnosis of no great value except that it is one more sign of a generally deficient diet. We have not found that treatment of chronic diarrhea with large doses of carotene or vitamin A has been helpful.

CIRRHOSIS OF LIVER

Cirrhosis of the liver is the last item in the list of deficiency diseases seen in the Cincinnati General Hospital. We have seen that disease 104 times in three and a half years, not counting cirrhosis associated with congestive failure, that is, cardiac cirrhosis nor syphilitic cirrhosis nor that which follows acute arsenical hepatitis. These patients are mostly classed as Laennec's cirrhosis and give a history of alcoholism of varying duration and saturation. These patients have many other manifest deficiency diseases of which beriberi and pellagra are commonest. To call Laennec's cirrhosis a deficiency disease is by no means a premature and ill considered new way of looking at an old disease. Many clinicians have been impressed by the frequency of various associated deficiency diseases seen with cirrhosis—as low serum protein with edema, pellagra, beriberi, night blindness and anemia. Whether these associated diseases were due to the failure of liver functions because of cirrhosis or are all a part of a multiple deficiency, including cirrhosis as one, has been the dilemma.

Now there is new evidence from the experimental production of cirrhosis in animals by deficient diets,[6] as well as the certain improvement of patients in advanced stages of cirrhosis by treatment with diet and vitamins.[7] We have never been able to conclude that alcoholic habits alone ever cause cirrhosis, but poor diets due to alcoholism may be the cause. This point of view is important for prevention and treatment. The references to thorough clinical experimenting with this disease are numerous. In the Cincinnati General Hospital we have not been able to restore an unconscious patient to health once he has lapsed into coma. With a generous diet and vitamins including yeast we have improved our patients who seemed to be about to become comatose and discharged many who looked hopeless.

We do not understand the nature of hepatic coma, although we see it often. In our experience once the patient goes into coma all efforts fail. We manage to restore the water and electrolyte balance, the oxygen content, the serum proteins, the hemaglobin and blood sugar; in fact, we restore everything but consciousness. Our efforts include the aid of the rare numbers in the B_2 complex, namely pyridoxine, pantothenic acid, biotin, para-amino,—benzoic acid, inositol, and choline. We have not cured hepatic coma as has been reported by others.

In this survey of deficiency diseases I have not counted any of the anemias as pernicious anemia and sprue even though they may be deficiencies, nor any hypoproteinemia as is counted as a deficiency by some. Only the well-established, easily diagnosed entities are counted. We have not counted anemia due to iron deficiency nor disease due to calcium deficiency because we are unable to decide that such condition exists because of nutritional deficiency, i.e., poor diet.

Secondary deficiencies seem numerous when we regard the number with associated disease. The number of unassociated or primary deficiencies is not great, but in many instances there appears no line of demarcation between the cart and the horse, much less a way of telling which way the aggregation is moving.

Since there has been so much curiosity about malnutrition and particularly about the incidence of nutritional disease, I present the following summary even though these figures may be incomplete and do not distinguish between complicated and uncomplicated diagnoses. When better methods for diagnosis are at hand the numbers will probably be increased. Unless the campaign for diet reform succeeds better than it has I am sure the numbers will increase.

SUMMARY

In a period of the recent three and a half years among a total of 9530 medical admissions there were diagnosed 210 patients with one or more specific deficiency diseases. Subtracting 14 in which there were multiple deficiencies recorded we find about 2 per cent as the case incidence of deficiency diseases. Cirrhosis of the liver made up approximately 1 per cent.

Nutritional neuritis was next in frequency, niacine deficiency next, pellagra next and riboflavin next. Scurvy, beriberi heart disease and clinical vitamin A deficiency were rare.

Diagnosis of deficiency diseases in our hands is largely a matter of physical examining and testing with specific treatments.

Deficiency diseases occurred most often in association with other diseases, mainly those that interfered with eating or the selecting of diet.

Diagnosis and treatment of secondary deficiency diseases may determine the outcome of other diseases regarded as primary.

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Biliary Drainage

Biliary drainage, popularized by Lyon, whose name the procedure bears, is believed by some to be the most precise method of diagnosing cholecystic disease. The procedure consists of intubation of the duodenum, preferably under fluoroscopic control, and the instillation of magnesium sulphate solution. The latter causes relaxation of the sphincter of Oddi, thus inducing emptying of the gall-bladder. The bile thereby obtained is examined grossly, microscopically and bacteriologically. The dark or "B" bile which most authorities believe comes from the gall-bladder is the fraction measured and examined for cholesterin crystals, calcium bilirubinate pigment, leukocytes and bacteria. Absence or a trace of "B" bile on repeated examinations is considered a sign of gall-bladder pathology. The finding of crystals or pigment clumps indicates the presence of calculi. The presence of pus or bacteria is considered pathognomonic of infection. The absence of these elements, however does not necessarily exclude pathology.

It is obvious that biliary drainage can attain a high degree of accuracy only at the hands of competent, experienced workers exercising meticulous technique and discerning judgment in the interpretation of the findings.—Louis L. Perkel, M.D., Jersey City, N.J.; Jour. Med. Soc. of N.J., Vol. 39, No. 9, September, 1942.

The Chemistry of Pollen Extracts I

Studies With Activated Charcoal and Ragweed Pollen Extract

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THERE are many organic mixtures from which it is desirable to remove a single component by non-chemical methods. Adsorption by activated charcoal is one of the methods of choice, since its action is often selective and the remaining solution is left unchanged. Choosing ragweed extract for their solution and Norite as a type of activated charcoal, Stull, Cooke, and Tennant[1] reported that the extract was inactivated and that the decolorised residual solution did not elicit skin test reactions in ragweed sensitive patients. On the other hand, Caulfield, Brown, and Waters[2] fractionated ragweed extract with Norite and stated that the decolorized residual fluid was as active as the original solution. They used as their criterion of sensitivity the simple scratch test.

Despite these mutually contradictory reports, the phenomenon involved must still be considered as important. If as according to Stull, Cooke, and Tennant[1], the decolorized extract is inactive in skin tests, then this would be an ideal means of resolving the active substance or substances and indirectly furnish an exact means of standardizing allergenic extracts. It is for this reason that this work was undertaken. Granting that it is desirable to standardize pollen extracts, the method described would be ideal. If there is a single active substance and it is the only substance adsorbed (being removed in its entirety), there is no real problem. A determination of the total nitrogen of the solution before and after treatment with charcoal would show a difference due to the nitrogen value of this active substance. If there are several active substances only some of which are adsorbed, we have a method of fractionating our extract. It may be, of course, that there are one or more active fractions whose adsorption is inconstant. This, however, is easily subjected to proof. The two papers mentioned, therefore, bring up a number of questions which require answers.

Three grams of defatted ragweed pollen were extracted in 100 cc. of 0.85 per cent sodium chloride solution. Stull, Cooke, and Tennant[1] have shown that "at pH 7.6 in an alkaline saline extract after treatment with Norite and Seitz filtration, that there was no adsorption. However at pH 6.6 in a water extract the resulting solution was inactive in skin tests." A saline solution (0.85 per cent) in distilled water is slightly acid, and for this reason was chosen as our extracting fluid. To 10 cc. of this extract was added 0.5 grams of Norit A**. The suspension was stirred with air bubbles for fifteen minutes and then centrifugalized. By means of the semi-micro Kjeldahl method, the nitrogen content of the original solution of the clear supernatant fluid were both determined. All determinations were done in duplicate. The difference in total nitrogen was due to the nitrogen removed from the solution in the substance or substances adsorbed by the charcoal.

Total Nitrogen Content of the Original Extract, 0.39 mgs./cc.

Total Nitrogen of Supernatant Fluid, 0.14 mgs./cc.

Nitrogen Value of Adsorbed Substance (by difference) 0.25 mgs./cc.

These values were constant within the framework of the experiment. A series of determinations was done varying the time with which the charcoal remained in suspension. All samples taken after 15 minutes showed equal maximal values.

Skin tests with the undiluted decolorized material on ragweed sensitive patients showed it to be reactive to a high degree, giving skin tests with wheals and pseudopodia when used intradermally. Although slightly less in degree than

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**Norit A (Decolorizing Carbon) Pfanstiehl, Waukegan, Illinois.

the original extract with which the patient had been tested, the reactions had all the appearances of specificity as described in Table I.

The patient sensitive to ragweed and, in some cases in addition, to timothy gave the reactions as tabulated. Their previous tests to ragweed 100 units and 1000 units were +++ and ++++. One patient, M. M., under treatment for two and a half years and receiving 20,000 units of ragweed each injection, gave a reaction with a wheal but no pseudopodia. The control of extracting fluid was negative in these same patients. In order to prove the specificity for ragweed sensitive patients, we used four grass sensitive patients, not sensitive to ragweed. According to Table II, the decolorized concentrated extract was negative in such patients.

TABLE I.

PATIENT	SENSITIVITY	ORIGINAL INTRADERMAL TEST Solution		Reaction	TEST WITH DECOLORIZED EXTRACT Concentrated	CONTROL 0.85% Saline
H. A.	Timothy Ragweed	Ragweed	100	++++	++ — +++	0
B. F.	Ragweed	Ragweed	100	++++	++++	0
E. D.	Ragweed	Ragweed	100	++++	+++	0
M. C.	Timothy Ragweed	Ragweed	1000	++++	+++	0
M. M.	Ragweed	Ragweed	1000	+++	++	0

TABLE II.

PATIENT	SENSITIVITY	ORIGINAL INTRADERMAL TEST Solution		Reaction	TEST WITH DECOLORIZED EXTRACT Concentrated	CONTROL 0.85% Saline
R. L.	Timothy	Timothy	100		0	0
R. A.	All Grasses	June Grass	1000	+++		
		Sweet Vernal	100	+++		
		Red Top	1000	+++		
		Meadow Fesque	1000	+++	++ — +++	++
		Orchard Grass	100	++++		
		Timothy	1000	+++		
		Ragweed	100	+++		
M. F.	All Grasses	June Grass	100	+++		
		Meadow Fesque	100	+++		
		Red Top	1000	+++	0	0
		Timothy	1000	++ — +++		
		Ragweed	1000	+		
M. C.	All Grasses	June Grass	1000	++ — +++		
		Sweet Vernal	1000	++ — +++		
		Red Top	1000	+++		
		Meadow Fesque	1000	+++ — ++++	++	++
		Orchard Grass	1000	+++		
		Timothy	1000	+++		
		Ragweed	1000	+		

The extract was non-reactive in the skins of five non-allergic individuals as shown in Table III.

TABLE III

Normal Patient	Control Test With Decolorized Extract	0.85% Saline
E. A. B.	Neg.	Neg.
J. B. L.	Neg.	Neg.
N. B.	Neg.	Neg.
M. J. O.	Neg.	Neg.
H. A. F.	Neg.	Neg.

The supernatant fluid was subjected to other tests. The addition of a drop of phosphotungstic acid caused a trace of precipitation which dissolved on the addition of more 10 per cent phosphotungstic acid in 10 per cent hydrochloric acid. Since this solution was reactive by skin tests, we may conclude that Norit A cannot, therefore, be used for the standardization of ragweed pollen extract, nor can phosphotungstic acid be used for standardization for the same reason. The second paper in this series will give the detailed work supporting these conclusions.

Qualitative tests show the supernatant fluid to be negative by the Hopkins-Cole, Biuret, and Xanthroproteic tests. A known solution of egg albumin in the same concentration as the decolorized extract gave definite positive reactions. Therefore, the 0.14 mgs. of nitrogen cannot be called albumin, thus explaining the negative tests. It gives a positive Molisch and Ninhydrin tests and contains 0.03 mgs. per cc. of nitrogen as ammonia. These tests would indicate that we are not dealing with a true albumin but probably with a small molecule containing an alpha-amino group and a carbohydrate fraction. Further work to be reported upon subsequently will furnish information as to the chemical nature of these components.

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Gallbladder Disease and Pregnancy

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At one time it was assumed, largely on the basis of post hoc reasoning, that gallbladder disease was almost invariably the result of previous infection with typhoid. The great decline in the incidence of this disease has largely ruled it out as an etiological factor. Moreover, it has been known since 1890 that cholecystic disease is more common among women than among men. What factor peculiar to women makes them more susceptible to cholecystic disease? Is there any relationship between the reproductive function in women and the prevalence of the disease among them? Middleton[1] noted "the marked preponderance of the incidence of gallstones in women who have at some time been pregnant." Fridenwald[2] points out that the association of gallbladder disease with pregnancy is undeniable and that in any discussion of the etiology of cholecystic disease, pregnancy must always be considered.

Rolleston,[3] in his treatise on gallbladder disease, states that there are two etiologic factors; one a metabolic or aseptic cause in which there is an excess precipitation of cholesterol and a second, or infective cause, in which a mild inflammatory process leads to excess liberation of cholesterol from the mucous membrane of the gallbladder. Among the etiologic infective conditions typhoid fever was formerly given a high place. However, the incidence of gallbladder disease has not diminished with the control of typhoid fever.

The factors in pregnancy which contribute to gallbladder disease appear to be: (a) increased cholesterol content of the blood, (b) biliary stasis with consequent infection, (c) passive hyperemia of the liver and, in some instances (d) puerperal infection.

Alteration of the blood cholesterol during pregnancy has long been recognized. Fluhmann[4] reviewed the literature and concluded that the increase in cholesterol is determined by an increased production and a decreased excretion. Lactation was deemed responsible for this altered status.

DeLee[5] propounded the following questions: Why does pregnancy increase the tendency towards gallstones? Is this due to malposition of the gallbladder; to increase of cholesterol in the blood, or to increased invasion by bacteria from the intestines owing to stasis? A variety of answers to these questions can be found in the literature. Vignes,[6] a French writer, points out that infections of the gallbladder usually begin before or during pregnancy and suggests that in many instances they are due to the colon bacillus which reaches the gallbladder through the blood stream or by direct invasion of the bowel. M. G. Potter[7] states that in 75 per cent of pregnant women with normal gallbladders this organ is distended at term. Schaefer[8] studied the physiology of the gallbladder in pregnancy, labor and the puerperium; he found a distinct delay in the emptying time, in some cases as much as six hours, during pregnancy. He attributed this to a disturbance of the vegetative system. According to Potter[7] stasis of the bile in the gallbladder of pregnant women at term is common but bacterial invasion of this organ at term is rare. He too believes that metabolic dysfunction, functional motor disturbances and stasis are more important than infection or mechanical pressure as forerunners of biliary disease in women.

Alteration in the concentrating power of the gallbladder wall has been observed during pregnancy by Gerdes and Boyden.[9] In the second and third trimesters they found a marked retardation in the emptying time; and attributed this delay to "hypertonic conditions of the sphincter choledochus i.e. to a physiological dyskinesia affecting the changed hormonal content of the organism in pregnancy". They believe, "that the stasis of pregnancy sets the stage for the sequence of events which results in the greater incidence of gallbladder disease among women who have borne children".

During the years from 1916 to 1938 inclusive 746 cases of cholecystic disease were operated on at Mount Sinai Hospital. A review of these cases was undertaken to determine the correlation between the information thus obtained and the views expressed in the literature. Of these 746 cases, 612 occurred in women and 134 in men, a

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ratio of 82 per cent women to 18 per cent men; this conforms well with reports in the literature.

The age incidence among the women proved interesting. One hundred and ten were between 16 and 30 years, 198 between 31 and 40, 166 between 41 and 50, a total of 474 within the limits of childbearing age. Of the remainder, 94 occurred between 51 and 60, 37 between 61 and 70, five between 71 and 82 with only two patients whose ages were undetermined. Reducing these statistics to percentages, 78 per cent of the women had cholecystic disease during the childbearing period.

Four hundred and sixty-eight women had had one or more children (the largest number being 19), 55 were married but nulliparous, 10 were single and the parity of 79 could not be determined from the records.

TIME OF FIRST ATTACK

The time of the first attack varied from a period shortly after the onset of pregnancy to as long as 25 years after the delivery of the fifth or last child. One patient developed her first attack three days after being operated on for an ectopic pregnancy, and another patient immediately after labor. Seventy-eight patients had their first attack within a year after delivery; 79 patients from one to five years afterwards; 41 from six to 10 years, and 61 from 11 to 25 years after the first pregnancy. Fifty-three patients had their first attack of gallbladder disease during the pregnancy and puerperium. One patient, who was unmarried, had her first attack at the age of 16 and another had an attack of gallbladder colic at the time of an elective Caesarean section.

The number of attacks prior to operation ranged from only one to an undeterminately large number; a great proportion of the patients indicated that the attacks were too frequent to count.

Of a total of 612 women only 160 had an X-ray examination at the hospital after admission. Among these, 78 roentgenograms showed stones. In 14, the gallbladders appeared normal, and in 68 there was either no outline of the gallbladder or a poor one. Four hundred and fifty patients were admitted to the hospital with a clinical diagnosis of cholecystic disease, gallstones or both; a majority of them had been examined by X-ray, for verification of the diagnosis, by private roentgenologists or the attending internists.

There were only 61 instances out of a total of 612 in whom a definite history of typhoid fever could be obtained. The patients who had had typhoid fever ranged in age from 29 to 82 years. Eleven were married but had no children and one patient was single. The parity of 43 patients ranged from one to eleven and that of eight patients was not tabulated in their histories. As in the main group, practically all the patients had many attacks before submitting to surgery. The onset of the first attack varied from one week to 35 years prior to hospitalization. Seven patients associated their first attack with pregnancy. Eleven patients had roentgenograms of the gallbladder after admission. One of these showed a normal gallbladder, seven showed stones and in three the gallbladder was reported as not visualized. In the remaining 50 patients the diagnosis of cholecystic disease was made with or without X-ray examination prior to admission. All these patients had laparotomies, 55 choloecystectomies and six cholecystostomies.

All 612 women in this series submitted to surgical operation; 93 per cent had the gallbladder removed, 7 per cent had the gallbladder drained. In the latter group were patients who were operated on under conditions which were not favorable for removal of the gallbladder, or who were operated on during the period when gallbladders were drained but rarely removed.

Eighty per cent of all the patients operated on had both cholecystic disease and cholelithiasis, 20 per cent had cholecystic disease without stones. The relationship of the parity of the occurrence of stones is of interest. Of the 480 patients in whom stones were found, 79 per cent had one or more pregnancies, 3 per cent were nulliparous, 5 per cent were single and in 13 per cent the parity could not be determined from the history. The findings bear out the statement made by Heyd[10] that "it is the rule to find calculi present when cholecystic disease occurs in pregnancy". The pathologic findings in cholecystic disease complicating pregnancy did not differ from those occurring in the nonpregnant state. The variety and number of stones found, their formation and location and the associated lesions involving the liver, gallbladder and surrounding organs showed no characteristics which would distinguish cholecystic disease in pregnancy from that in the nulliparous woman.

CHARACTERISTIC SYMPTOMS

The characteristic symptoms of cholecystic disease with or without stones showed little or no variation among the 612 patients in this series. Marital status, parity or the age of the patient played no particular role as far as the symptoms were concerned. When vague or atypical, the symptoms were mistaken for other conditions such as appendicitis, peptic ulcer, ectopic pregnancy, miscarriage, peritonitis, pyelitis and renal colic. The statement has been made that symptoms of gallbladder disease are frequently present in gravid women and when observed in pregnancy they are very likely to recur and become more pronounced in succeeding pregnancies.

Friedenwald[2] points out that the diagnosis of cholecystic disease during pregnancy is usually not difficult and believes that the clinical signs and symptoms are of more value than roentgen ray studies. The existence of a pregnancy should not alter the usual prognosis in cholecystic disease. The outcome of an acute attack is quite favorable and ordinarily ends in recovery. Complications such as perforation of the gallbladder, intestinal obstruction, pericholecystic adhesions and suppurative cholecystitis makes the prognosis uncertain but no more so than in nulliparous women. Operative intervention should not affect the prognosis to any greater extent in the pregnant than in the nonpregnant woman.

Treatment of cholecystic disease during pregnancy should be medical, primarily, but if urgently demanded, surgical, without regard for the existence of the pregnancy. In women who have had attacks in successive pregnancies prophylactic measures should be employed. Lax abdominal walls should be properly supported, moderate exercise in the form of deep breathing and walking is suggested, prevention of constipation and adherence to a physiologic diet is advisable. Appropriate surgical measures should be instituted when indicated, as the presence of the pregnancy is no contraindication to operative interference. Some consider early operation preferable while others advise waiting until the child becomes viable. In many cases temporizing medical measures may be all that is necessary to defer operation until after parturition has taken place. There are a number of conditions which require immediate surgical intervention as for example empyema of the gallbladder, perforation or rupture of the gallbladder and repeated attacks of gallstone colic.

In operations in the last trimester of pregnancy the technical difficulties may be increased but they are by no means insurmountable. The operation of choice is one which will remove the pathologic tissues as rapidly as possible and in uncomplicated cases cholecystectomy is preferable to cholecytostomy. The operation per se has no particular tendency to initiate uterine contractions. However, it is the opinion of the majority of the writers on the subject that, if it is at all possible, where the child is approaching viability, the operation be delayed as long as possible in the child's interest.

SUMMARY AND CONCLUSIONS

1. A series of 746 cases of cholecystic disease is reported; 82 per cent occurred in women and 18 per cent in men.

2. Of the 612 cases among women 474 or 78 per cent occurred during the childbearing period.

3. Seventy-six per cent of the women having cholecystic disease had had one or more children.

4. The time of the first attack varied from a period shortly after the onset of pregnancy to 25 years after the delivery of the fifth and last child.

5. Only 61 out of a total of 612 women gave a definite history of typhoid fever.

6. Eighty per cent of the women operated on had both chylecystic disease and cholelithiasis.

7. Of the 480 women in whom stones were found at operation 79 per cent had had one or more pregnancies.

8. All 612 women in this series submitted to surgical operation; 93 per cent had cholecystectomies, the remainder cholecystostomies with drainage.

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We are indebted to the members of the staff of Mount Sinai Hospital for their permission to review the case histories and to Dr. Morton S. Biskind of New York City for his editorial revision of this manuscript.

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Hyperparathyroidism

The number of cases of hyperparathyroidism proven at the Massachusetts General Hospital in ten years is due to the appreciation that the disease is one primarily of metabolism, not of bone. The diagnosis in the classic bone form is made readily but it is the rare form. The commonest type has no bone involvement. The kidney stone complication offers the most frequent presenting symptom. No patient should leave the hospital with a diagnosis of renal calculus unless "hyperparathyroidism excluded" can be appended. In mild cases, the diagnosis is made only with painstaking effort.

Treatment by irradiation has failed to relieve the disease.

The only effective and safe treatment is surgical. The requirements and pitfalls of this treatment have been reviewed.—Oliver Cope, M.D., Boston, Mass.; Jour. Mo. S.M.A., Vol. 39, No. 9, September, 1942.

The Management of Drug Eruptions

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By drug eruptions is meant a cutaneous disease which occurs in a sensitized individual following the absorption and dissemination of drugs. The term drugs means medicaments in general.

The portal of entry of drugs may be the gastrointestinal tract, by means of the mouth or rectum, the skin, by means of contact or inunction, the deeper tissues, by means of injection, or rarely the respiratory system, by means of inhalation. By drug eruptions is meant the internal action of the drug expressing itself as a skin disorder; not the surface action of the drug. Eruptions due to the surface action of medicaments are considered in the contact dermatitis group.

Due to the changing popularity of the various new synthetic drugs and the continuing discovery of newer ones, the type of drug eruptions and the drugs responsible for the cutaneous rashes vary with these changes. One must also be warned that an eruption is not necessarily a drug eruption because the patient happens to be taking some drug prior to, or at the time of the appearance of an eruption. However, the wise physician will remember always that certain individuals possess the capacity to react to medications in a peculiar way.

A drug may reach the internal tissues in the following manners, some of which are unusual and may be overlooked in attempting to solve an obscure dermatological problem:*

1. Oral administration—the most common method of taking drugs. A baby may receive the drug through the mother's milk.
2. Injection into tissues—local effects (insulin, tatoo, diagnostic tests); general effects—therapeutic or diagnostic (intradermal tests).
3. Injection into sinuses for roentgenologic study.
4. Intravenous injection — general effects (most common); local effects, sclerosing treatment of veins (sodium morrhuate); accidental during intragluteal injection (bismuth, mercury).
5. Intra-arterial injection; accidental during intragluteal injection (bismuth, calcium gluconate).
6. Absorption from skin—mercury, iodine, etc.
7. Absorption from conjunctiva and nasal mucosa—silver.
8. Absorption from deeper tissues in open wounds—sulfonamides, iodine, etc.
9. Absorption from oral mucosa—sulfonamides, silver nitrate.
10. Absorption from vaginal mucosa—mercury (bichloride), arsenic (acetarsone).
11. Absorption from bladder—silver.
12. Absorption from pulmonary system—iodized oil.
13. Absorption from devitalized teeth—orthoform, eugenol.
14. Inhalation—ethyl iodide, mercury.
15. Transplacental absorption (prenatal)—bromides, barbiturates.

The clinical appearance of eruptions produced by drugs covers a wide range, including erythema, urticaria and angioneurotic edema, purpura, eczema, pustular, bullous and vegetative lesions, keratosis and hyperpigmentation.

The eruptions in which medicaments play a casual or a contributory role can take on the appearance typical of almost any dermatologic entity and can, furthermore, produce their own peculiarly characteristic forms, as well as the most atypical and puzzling pictures. A rule of thumb that many dermatologists follow is that if the cutaneous eruption does not fall into one of the distinct dermatologic entities, a drug eruption must be thought of.

A drug eruption may range from one which is mild and insignificant to a severe and even fatal eruption. The manifestations vary from all degrees of itching without cutaneous signs to fungating and proliferating lesions simulating malignant tumors. The lesions vary in number from a single or few lesions to involvement of the entire body surface, mucous membranes, central nervous system, blood cells and many viscera. The patient may be entirely well except for the cutaneous disease, or he may be seriously ill, with high temperature, delirium and prostration.

There are numerous characteristic and common forms of drug eruptions. Examples are the metallic pigmentations, due to silver, bismuth, mercury, and gold salts. Another type which is considered due solely to drugs is the fixed eruption. This may consist of one or more erythematous, often urticarial plaques, usually intensely hyperpigmented, which flare up on each administration of the drug. The term fixed does not refer to the duration of the cutaneous lesions or to the residual pigmentation that may occur as a sequel, but to the repeated relapse, with a

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Dr. Cukerbaum was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

Note: The opinions and assertions contained herein are those of the writer and are not to be construed as official or reflecting the views of the Navy Department or of the naval service at large.

*Becker and Obermayer; Modern Dermatology and Syphilology.

flare-up in situ of the previously affected areas of the skin.

Other common forms of drug eruptions include the acneform dermatoses due to iodides and bromides; the urticarias and angioneurotic edemas often due to arsenicals, salicylates or phenacetin; the morbilliform and scarlatiniform eruptions due to the sulfonamides, etc.; the erythema multiforme, purpuric and bullous eruptions due to barbiturates and many other drugs; and the exfoliating dermatoses due to the arsphenamines and other metals.

As has been said, drugs produce many and varied dermatoses and the eruption can emulate many of the distinct dermatological entities. However, certain dermatoses are more common than others, and certain drugs are more prone to produce certain, more or less characteristic dermatoses.

SOME COMMON DERMATOSES AND THEIR MOST FREQUENT CASUAL DRUGS (WISE AND SULZBERGER)

1. Purely eczematous eruptions with erythema, papulation, vesiculation, weeping and scaling—(quinine, procaine, and other anaesthetics, ephedrine, mercurials, formalin, sometimes arsphenamines, etc.).
2. Urticaria and angioneurotic edema—(salicylates, barbiturates, belladonna, atropine, iodides, bromides, the opium group, and phenolphthalein).
3. Scaly erythematous eruptions, purely erythematous or scarlatiniform and morbilliform, and dermatitis exfoliativa—like conditions (arsenic, arsphenamine, belladonna, balsams, heavy metals, nirvanol, salicylates, sulfanilamide, sulfapyridine, etc.).
4. Erythema multiform—like eruptions (phenolphthalein, antipyrine, salicylates, barbiturates, other soporifics, sulfanilamide, sulfapyridine, etc.).
5. Erythema nodosum—like eruptions (iodides, bromides, salicylates).
6. Acneform, furunculoid, and erysipelas—like eruptions (bromides, iodides, chlorine, oils, tars, etc.).
7. Pemphigoid and ulcerating and vegetating eruptions (bromides and iodides).
8. Purpuric eruptions (iodides, arsphenamines, particularly sulfarsphenamine, carbamides [sedormid], barbiturates, balsams, sulfanilamide, sulfapyridine, etc.).
9. Lichenoid and lichen planus—like eruptions (arsenic, arsphenamine, gold, etc.).
10. Fixed and circumscribed, erythematous, edematous or bullous and polychromatic pigmented eruptions (phenolphthalein, antipyrine, phenacetin, barbiturates, salicylates, the arsphenamines, gold, sulfanilamide).

MANAGEMENT OF DRUG ERUPTIONS

The management of drug eruptions depends largely upon:

1. Recognition of the cutaneous manifestations as due to a drug or drugs.
2. Discovery of the exact drug or drugs causing the eruption.
3. Elimination of the causative drug or drugs.
4. Treatment of the drug eruption by local and general measures.

Diagnosis of a drug eruption is at times made simply from the nature of the eruption and the history of ingestion of drugs. In many cases a typical or atypical cutaneous eruption occurs in a patient receiving a certain drug, and the question naturally arises as to whether the condition is to be considered a drug eruption or is an instance of the dermatosis which it represents. Many of the drug eruptions are brilliantly erythematous, so that a more or less generalized eruption of this type should always arouse suspicion. Bromides and iodides may initiate an acneform eruption or may aggravate a pre- existing acne. Vegetative bromodermas form cauliflowerlike condylomatous or fungoid masses of hypertrophic granulations, and usually are accompanied by a purulent exudate. They must be differentiated from blastomycosis.

The fixed eruption which is considered to be solely due to drugs is caused in most cases by phenolphthalein. In some cases extensive dermatologic experience is required for the detection of some forms of drug eruptions and for the differentiation of these eruptions from other dermatologic conditions. The physician must think of drugs in the causation of dermatoses and his suspicion should be aroused in certain skin eruptions.

In attempting to arrive at the causative drug or drugs, constant questioning of the patient is necessary. Many patients when questioned as to drugs think of opiates and deny that they are taking drugs. Some patients also may try to hide the fact that they are taking medication for various reasons. Also many people disregard the fact that medications for headaches, laxatives, cathartics and sedatives are important in obtaining a drug history. It is therefore important in questioning the patient to ask him; what do you take for headaches, as laxatives, cathartics, for colds, sore throats, nervousness and sleeplessness? Then specified drugs may be inquired into, especially many of the common proprietary medications such as aspirin, Bromo-Seltzer, Feenamint, Ex-Lax, and many others in common use. Small quantities of a drug can produce marked effects in the sensitive individual. Scratch and intradermal tests are of little value in determining the causative drugs. Patch tests are of some value, but only in the eczematous type of drug eruptions. The clinical test is the important thing; that is the clearing up of the rash on the stoppage of the drug. It is not advisable to have the patient take the drug again to produce the eruption, due to the attendant danger of a severe reaction, and most patients refuse to act as guinea pigs for purely scientific purposes.

Once an eruption is diagnosed as due to a drug or drugs, or medicaments are suspected as the etiologic agent, all drugs should be stopped and should drug therapy still be indicated, the medicament or medicaments should be replaced by drugs the patient has never previously taken, or by drugs which are not related, and less likely to produce eruptions. The patient should be instructed in the avoidance of drugs and proprietary medication commonly in use that contain the drug or drugs to which he is sensitive.

The treatment in drug eruptions consists primarily of the discontinuance of the causative drug. Besides the discontinuance of the drug the eruption should be treated locally and constitutionally as indicated. The local treatment indicated depends upon the type and character of the cutaneous eruption. Eczematous eruptions should receive the same treatment as any other eczematous condition receives, that is, the relief of itching and topical applications as indicated by the state of the eruption. In acute vesicular eruptions apply compresses of boric acid, physiological saline, or potassium permanganate 1:1000—1:10,000; lotions such as calamine, or zinc oxide and lime water; pastes such as zinc oxide, or zinc oxide with oil of cade 3-5 per cent or liquor carbonis detergens 3-10 per cent. In subacute eruptions oil of cade 3-5 per cent in shake lotions or in pastes, crude coal tar 1-10 per cent in pastes or ointments are useful.

In severe and generalized drug eruptions careful hygiene of the skin is important as is the avoidance of medicaments which may sensitize the skin.

In arsenical eruptions, sodium or calcium thiosulfate given daily intravenously, liver extract intramuscularly, X-Ray treatment to the skin if indicated are considered good general measures. In purpuric eruptions the addition of vitamins C and K in addition to local treatment is advised. In bromide eruptions physiologic sodium chloride intravenously 200 cc. to 400 cc. if tolerated is advocated. Filtered X-Ray therapy also aids in vegetative lesions.

It is necessary to think of drugs as an etiologic agent in many cases of widely different dermatoses and where drugs are suspected they must be eliminated.

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Vitamin B Complex

It must be observed that the vitamins can hardly be classed as drugs in the true sense, but they should be classed as foods. They are essential to the maintenance of the body in almost the same sense as the amino acids. In fact, the vitamins of the B complex are related to the amino acids both chemically and physiologically. They all contain nitrogen, one of the essentials of the amino acids. Two of them, nicotinic acid and pantothenic acid, are carboxylic acids as are the amino acids. Thiamin and perhaps others of the B vitamins sometimes act as allergens as frequently do the proteins, which are but combinations of amino acids. About a generation ago leading scientific investigators discovered that some animals cannot live long without the amino acids tryptophan and lysine, which are not found in maize. Tryptophan is the basis for the formation of thyroxin and is essential to life, while lysine is related to pantothenic acid and is essential to growth. Here are deficiency states not unlike those due to the vitamin deficiencies. The work on amino acids was carried on for a time by those scientists who were willing to contribute their time for scientific and altruistic purposes; but since there was little opportunity for commercial gain in this work, the efforts for furtherance of these investigations seemed to lag until they were practically discontinued. But the reverse seems to be the trend in the study of the vitamins, for they are more easily commercialized and thus induce the pharmaceutic manufacturers to spend much in scientific effort toward discoveries relating to these latter food essentials. These relationships, however, prove the similarity of the B vitamins to the amino acids.

Both amino acids and vitamins are essential to life and growth and are safe when given in reason. Some of the amino acids are the essential building stones of the hormones, while the vitamins serve as enzymes in the distribution of oxygen and as activating agents to the endocrine glands to assist in the production of the hormones, the governing agents of all the tissues of the body. These three, amino acids, vitamins and hormones form the tripod of life. The amino acids are developed mostly in vegetation, the vitamins of the B complex are produced entirely in vegetation and the hormones are developed entirely in the animal body. When these are in balance in the body, the organs are physiologic in their functions, but, when they are out of balance, there develop pathologic phenomena called disease.—T. M. Rivers, M.D., Kissimmee, Fla.; Jour. Fla. M.A., Inc., Vol. XXIX, No. 3, September, 1942.

Preparation of the Patient for Anesthesia

JAMES H. BENNETT, M.D.

An uneventful and comfortable recovery of the surgical patient after operation is a reflection of the adequacy of his preparation before he comes to the operating room. Time spent to make sure that his physiologic processes are as nearly normal as possible is time well spent. Recognition of pathologic changes makes it possible for the surgeon and anesthetist to avoid further strain on vital organs. Knowledge of the patient's condition makes possible the intelligent selection of drugs for pre-operative sedation. Adequate preparation and proper premedication demand the skill of the attending internist and the surgeon. It is by careful attention to these details that the incidence of complications during and after operation may be reduced.

I. ROLE OF THE ANESTHESIOLOGIST

The fact that the anesthesiologist can be useful to the internist and the surgeon is gaining recognition. The term "anesthesiologist" is used to differentiate the physician with special training not only in various types of anesthesia but also in other fields, such as gas therapy. Discerning surgeons and patients have learned that the physician who devotes his entire attention to anesthesia has much more to offer than technical dexterity. His basic medical training provides the anesthesiologist with a knowledge of the normal and abnormal physiology of respiration and circulation. His experience with the pharmacologic effects of depressant drugs makes him a valuable consultant for the surgeon in choosing anesthetic agents and methods. He can help the patient in whom abnormalities are already present by avoiding further derangement of physiologic processes.

If the anesthesiologist can meet his patient before the operation to ask and answer questions, he can often gain useful information. An interview may serve to correct false ideas and to allay apprehension. A knowledge of the patient's dislikes and idiosyncrasies may help in avoiding troublesome reactions.

II. CONDITION OF THE PATIENT BEFORE OPERATION

A. Disturbances in Physiology—The task of the anesthetist would be easier if all patients could enter the operating theater in perfect physical condition. In the sick patient, physiologic changes in vital organs may be compared to hidden structural defects in an airplane. The anesthetist, like the navigator, knows that recognition of such conditions and their correction, if possible, will do much to help him in guiding his rickety craft safely to its destination. In recent years the work of Coller[2,3], Darrow[5], Drew[6], and their associates on water and chloride balance, hemoconcentration, acidosis, and alkalosis have done much to increase our knowledge. They have enabled us to supplement clinical judgment with methods of scientific accuracy in determining the patient's condition and the results of therapy. Holman's study[9] has shown the importance of adequate pre-operative vitamin and protein levels in connection with wound-healing.

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B. Systemic Defects—Any pathologic change in the circulatory, respiratory, or gastrointestinal systems should be known to the anesthetist. Cardiac patients, if carefully managed, can stand anesthesia and operation well. The impaired heart, however, will not survive the strain of excessive quantities of carbon dioxide or low atmospheres of oxygen. At times it is advisable to use oxygen therapy with such patients before, during, and after operation. The patient may be brought to and taken from the operating room with an oxygen mask, of the B-L-B type, or an oro-pharyngeal catheter in place. High oxygen atmospheres can thus be displayed continuously to avoid aggravation of myocardial defects.

Abnormalities of the respiratory system, particularly of the lower respiratory tract, can embarrass the anesthetist. Chronic infection of the mouth, nose, or throat may increase the incidence of postoperative complications and should be corrected if possible. It is better to remove loose teeth from the mouth before operation than from the lung by bronchoscopy later. As Waters[12] emphasizes, any obstruction to free respiration must be recognized and corrected.

The gastro-intestinal tract is a possible source of danger, especially in emergency operations. Since gastric emptying time may be prolonged by emotional stress or by pre-anesthetic medication it is possible for the patient to retain food

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for 12 hours or more. The assumption that the stomach may be full may avoid the disaster of tracheal aspiration of gastric contents.

III. PREMEDICATION

When the patient is in as good condition for operation as possible the next consideration is the choice of premedication. Anesthetists and surgeons vary widely in their choice of drugs.

A. **Morphine and Scopolamine.** Some anesthetists feel that the most reliable combination is that of properly balanced and timed doses of morphine sulphate and scopolamine hydrobromide, selected individually for each patient to match his physical state. It is well known that the child requires small amounts of narcotic drugs but it is less well recognized that the metabolic requirements of the aged person are similar to those of the infant. The vigorous young adult will tolerate much larger amounts. As stated by Guedel[8], hyperthyroidism, fear, pain, and acute infectious processes increase the tolerance for narcotic drugs.

As shown by Wangeman and Hawk[11], scopolamine, which is the same as hyoscine, is superior to atropine sulphate in reducing mucous secretions. Scopolamine has the additional advantage of producing psychic depression, bringing the patient to the operating room calm, cooperative, and comfortable. It is more effective than atropine in combating the respiratory depression produced by morphine.

Scopolamine, unlike morphine, keeps best in ampoules but the higher cost discourages its use in that form. The occasional hyoscine reaction, in which the patient becomes talkative and excitable, is usually due to the use of an old supply of tablets. Hypodermic administration of 1/50 to 1/60 of a grain of apomorphine hydrochloride is usually effective in quieting the patient. The prejudice which some surgeons have toward scopolamine may be due to having used a supply which has deteriorated.

As Wangeman and Hawk[11] have demonstrated, a ratio of 25:1 is usually correct for morphine and hyoscine. With a quarter of a grain of morphine, therefore, one should administer 1/100 grain of scopolamine. This ratio utilizes the best characteristics of the two drugs and minimizes their undesirable side effects.

The common practice of administering morphine and scopolamine "on call" is an error. Sufficient time for absorption must be allowed. Sixty to 90 minutes should elapse between hypodermic administration and induction of anesthesia. If time is short, as in emergency surgery, intravenous injection should be used, employing the same dosage and injecting slowly. There is a considerable effect in 5 minutes and a maximum in 15 to 20 minutes.

B. **Barbiturates.** Another class of drugs which are used widely for premedication is the barbituric acid group. As Goodman and Gilman[7] point out there is a marked variation between members of this group in rates of absorption and excretion or destruction. When administered in effective doses there is likely to be excessive respiratory depression which may be troublesome to the anesthetist. Some anesthetists feel that barbiturates should rarely be used in preparing patients for inhalation or intravenous anesthesia. Others, like Cullen[4], make an exception when they wish to use nitrous oxide, preferring a combination of morphine, scopolamine, and barbiturates.

Barbiturates have a place in insuring a patient a good night's sleep before operation. It is best to use one of the short-acting barbiturates such as pentobarbital sodium, which acts fairly quickly and passes off in a few hours. Phenobarbital, because of its low cost, is widely used but it is ill adapted to pre-anesthetic medication because of its slow, cumulative action. It may produce undesirable respiratory depression during the period of recovery from anesthesia.

In block anesthesia the barbiturates are useful because they produce cortical depression and tend to combat the undesirable reactions which may arise from the use of cocaine, procaine, and their substitutes[7].

IV. COMPLICATIONS DURING AND AFTER ANESTHESIA

A. **Convulsions.** The untoward results of unrecognized physiological changes in anesthetized patients are well illustrated by the so-called "ether convulsions." As Cassels[1] has shown, the cause is not the agent but a combination of circumstances, including physiological changes, and an unwise choice of premedication and anesthetic technic which permits the accumulation of carbon dioxide in excessive amounts in the patient's inspired atmosphere. Anesthetists are often careless in permitting carbon dioxide to accumulate because the normal individual tolerates it. In the patient whose chemical balance is disturbed by disease, carbon dioxide further disturbs the acid-base equilibrium. Twitching movements, convulsions, and death can occur if the anesthetist is not alert to recognize the cause and eliminate it quickly. Convulsions are more common in children, whose chemical balance is unstable at best. A typical instance is that of a child who is toxic and feverish from appendicitis and peritonitis, dehydrated from vomiting and with a low fluid and chloride balance.

B. **Atelectasis.** Another complication which may result from unwise choice of premedication is atelectasis, as stated by Waters[12]. Large doses of opiates or long-acting barbiturates may depress respiration and inhibit cough after operation. Some patients have large amounts of mucous secretions and habitually clear their throats each morning. Chronic respiratory infection or excessive smoking may be a factor. If in such a patient heavy sedation is employed on the night before operation he may be too depressed in the morning to expel the plug of mucus. The stage is thus set for aspiration during anesthesia, with a block of the lower respiratory tree by the thick, tenacious plug. Partial or massive lung collapse is the result.

V. CONCLUSIONS

By proper evaluation of the patient's condition before operation and careful use of preoperative medication the patient's comfort and safety can best be assured. The anesthesiologist can be helpful to the surgeon and his patient in the evaluation of the patient's condition, in selecting premedication, and in the conduct of the anesthetic. As Rovenstine[10] has stated: "The anesthetic agents and methods we have available are safe enough if used properly and if used for patients made safe for them."

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Thyroid Disease

The committee of the University of California Medical School would like to reaffirm:

1. That the nodular goiter presents the dangerous threat of malignant degeneration and therefore demands removal.

2. That toxic diffuse goiter may be treated by partial ablation either surgically or (in selected cases) by x-ray.

3. That in toxic goiter the administration of iodine should be reserved for use in the immediate period before surgery.—H. H. Searles, M.D., San Francisco; Calif. and Western Med., Vol. 57, No. 3, September, 1942.

The Estrogens

The uses and limitations of the estrogens in gynecological practice have recently been summarized by Hamblen. These substances find their chief use in the treatment of the menopausal syndrome. Their effectiveness in this condition is generally accepted. It is, however, necessary to differentiate symptoms which occur at the climateric but which do not have an endocrinological basis. The latter frequently respond to simpler forms of therapy and do not require the use of an estrogen.

The second principal use of the estrogens depends upon their capacity to stimulate the growth of the genital tract. This is the basis for their use in senile vaginitis, kraurosis vulvae and similar conditions, as well as for their use in juvenile gonorrheal vaginitis. Sulfathiazole, which acts directly against the gonococcus, has displaced the estrogens as the method of choice in treating the last-named condition.

An important aid in the rational application of the estrogens clinically has been the use of vaginal smear. This procedure permits one to evaluate objectively the state of the organism, insofar as any estrogen deficiency is concerned, and serves as an indicator of the efficacy of treatment.

The chief drawbacks to the effective use of the estrogens have been their excessive cost and the necessity of parenteral administration. The cost of the effective oral dose of the naturally occurring estrogens has been beyond the reach of most patients. This obstacle to the use of the estrogens has been removed by the introduction of the relatively simple and cheap synthetic compound, diethylstilbestrol. Although this compound differs essentially from the naturally occurring estrogens in chemical structure, it is probable that it is converted to estradiol in the organism. Per unit of weight, it is as effective as the natural compounds and pharmacologically has essentially the same actions as do the latter.

The undesirable side-reactions (nausea, vomiting, and epigastric pain) which follow the use of diethylstilbestrol and have discouraged its general use are to be attributed to the excessive doses used by earlier workers. The toxic effects of diethylstilbestrol are similar to those observed when comparable amounts of the natural estrogens are administered. With moderate doses (1 mg. or less daily), given intermittently, unpleasant reactions are infrequent.—Arthur Grollman, M.D., Winston-Salem; N. Carolina Med. Jour., Vol. 3, No. 9, September, 1942.

Cancer of the Vulva

JOHN J. McDONOUGH, B.S., M.D.

THIS paper will confine itself to a discussion and a statistical analysis of those cases of carcinoma of the vulva treated at Woman's Hospital, Detroit, from 1932 to 1941 inclusive.

Fourteen patients were found suitable for study. While this is a small series of cases, it appears to compare favorably with the frequency of the disease as seen in other centers of similar type and size.

Cancer of the vulva is a rare disease and constitutes about 5 per cent of all carcinoma occuring in the organs of the female pelvis. The uterus is most often attacked, the ovary next, and then the vulva.

Anatomically, in this study, 13 of these lesions had their origin in the labia and one was located in the clitoris. There was one malignancy with a Bartholin gland site of origin, but this was melanosarcoma and therefore was not included in this study.

NO. CASES	SITE
13	Labia (epidermal).
1	Clitoris.
1	Bartholin gland (melanosarcoma)

The diagnosis from an anatomical standpoint would compare favorably with the recent survey made by Taussig who found that approximately 67 per cent of his cases were epidermal in origin, arising from the labia or the adjacent skin. Primary carcinoma of the clitoris was rare, occuring only twice in 155 cases of vulvar cancer.

There was evidence of lymph gland enlargement in 10 out of 14 cases. In other words, when these patients were seen and an accurate diagnosis made, 71 per cent revealed metastatic changes in the regional lymph nodes.

The age at which the disease was encountered varied from 38 to 80 years. The average age was 56.2 years. This appears to be somewhat less than the average age reported in the literature. Folsome has recently reported an average age of 60.9 years in 129 cases, and Taussig has given 58 years as the mean for his series of 155 patients. However, cancer of the vulva is a disease of advanced years and should be especially watched for between the fifth and seventh decade.

In studying the etiology of this malignancy, one is struck with the important fact that leukoplakic vulvitis is a forerunner of the disease in well over half of all reported studies.

The Author

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In this study, leukoplakia was diagnosed in eight out of fourteen cases, an evidence of 75 per cent. There was one case of lues in the series and in the balance of five patients no definite etiological factor could be determined.

CASE	AGE	ETIOLOGY
1	78	Leukoplakia
2	50	Clitoris
3	41	Unknown
4	58	Leukoplakia
5	68	Leukoplakia
6	54	Unknown
7	62	Leukoplakia
8	41	Leukoplakia
9	80	Unknown
10	38	Syphilis
11	72	Unknown
12	44	Unknown
13	52	Leukoplakia
14	56	Leukoplakia

Thus it would seem that if we expect to treat carcinoma of the vulva, our first duty will be to recognize and adequately treat leukoplakia. It would be a distinct preventive measure and, according to Taussig, who has done a tremendous amount of excellent work in the study of diseases of the vulva, would prevent about one-half of all vulvar carcinoma. The treatment of leukoplakic vulvitis is vulvectomy.

The tertiary syphilitic ulcer of the vulva should be adequately treated, and chronically infected or enlarged Bartholin glands in women past the menopause should be removed. The surgical treatment of warts of the vulva and caruncles of the urethra should be likewise practiced, since these are quite definitely, in many instances, precursors of malignancy.

In this study, the predominating symptoms of cancer of the vulva in the order named were:

1. Pain and burning on urination.
2. Sore on the vulva.
3. Bleeding.
4. Vaginal discharge.

Moreover, the reported duration of these symptoms varied from six weeks to three years. This symptom complex appears to be quite constant and there seems to be a fairly direct relationship

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Submitted October 1, 1942

with regard to the duration symptoms and the stage of the malignancy. Nevertheless, the subjective interpretation of these symptoms by the patient is by no means consistent with early adequate treatment. The early symptoms of pruritus do not often bring the patient to her physician and patent remedies of all types almost always have been tried. The physician usually sees the patient when she has pain and bleeding. These latter symptoms are common to all malignancy but unfortunately they occur in the late stages of the disease.

While undoubtedly time is often lost by both patient and physician in the treatment of vulvar cancer, nevertheless, it is not infrequently true that the original lesion may be so small and inconspicuous that it passes unnoticed.

Pathologically, Novak classifies carcinoma of the vulva into two types: (1) The exophytic type which begins as a small nodule, becomes papillary and then develops fungoid characteristics, and (2) the endophytic, which begins as an ulcer surrounded by a marginal area of induration.

Microscopically, these lesions are epidermoid in character, showing many degrees of cellular differentiation. In general, the most common variety is the so-called spindle-cell type. In this instance, the cells are large and polyhedral, and there are many epithelial pearls. There is deep penetration of these cell nests into the connective tissue stroma, associated with a marked chronic inflammatory reaction. Growths arising from the clitoris often present a sarcoma like pattern, and primary cancer of Bartholin's gland assumes the form of adenocarcinoma.

Secondary carcinoma is quite uncommon but does occur. Cancer of the uterine body, or cervix, may spread here, as also hypernephroma, and chorionepithelioma. Moreover, tumors from distant organs may likewise metastasize to the vulva.

Extension of this type of malignancy is rapid due to the rich lymphatic drainage of the vulva. Thus, the inguinal glands are first involved, followed by deeper spread under Poupart's ligament to the deep inguinal, hypogastric, and iliac glands. The glands of the femoral ring may also be involved.

NO. OF PATIENTS	GRADE OF MALIGNANCY
3	Grade I
5	Grade II
4	Grade III
2	Grade IV

Carcinoma of the vulva lends itself to classification by the pathologist into grades of malignancy fairly well, and it is by this method that the series here reported has been pathologically indexed. Two patients were grade IV; four, were grade III; five, were grade II; and three, were grade I.

The direct relationship of cures to grading, following Broder's pathological classification, revealed that our best obtained results occurred in grades I and II, and our poorest in grades III and IV.

The treatment of these cancer cases varied somewhat with the pendulum of thought on the treatment of carcinoma elsewhere. The swing has been back and forth from x-ray and radium, to surgery. Today, however, the treatment has been well standardized and in all operable cases the method of choice is radical vulvectomy. Taussig states that over 70 per cent of vulvar carcinoma is operable. He advocates a modification of the complete Basset operation.

In the group of patients not considered operable, the treatment is divided between deep x-ray therapy and radium and palliative measures. The outlook in this group is, of course, very poor.

In this series at the Woman's Hospital, 71 per cent received surgical treatment divided between simple and radical vulvectomy; 21 per cent received radium after simple excision of the tumor, and 7 per cent were given palliative measures alone. The best surgical risks were subjected to radical vulvectomy. The next group had a simple excision of the tumor and application of radium; and the last group, palliative therapy.

TREATMENT	NO. CASES	PERCENTAGE
Radical Vulvectomy	4	28.5
Simple Vulvectomy	6	42.9
Removal of tumor and application of radium	3	21.4
Palliative measures	1	7.

Thus, in the first class surgical risk where the average age was 51 years, all four patients are living and the survival average is three years. Two of these patients have five-year cures.

Of those patients who had a simple vulvectomy, and whose average age was 61 years, three are living and three are dead. The average survival rate in this group is 1.5 years.

The three patients treated essentially by radium alone, are all dead. Their average age was 54 and the survival average was about 1.5 years.

TREATMENT	CASES	ALIVE	AVERAGE
Radical Vulvectomy	4	4	3 years
Simple Vulvectomy	6	3	1.5 years
Radium	3	0	1.5 years
Palliative	1	0	0. years

The one patient on whom palliative measures alone were used was 80 years old and was dead six weeks after the diagnosis was made.

DISCUSSION

It seems apparent that in the management of a relatively rare disease, such as cancer of the vulva, considerable education will be necessary in order to adequately inform the patient and physician along the correct line of prevention, diagnosis, and treatment of the disease.

The early signs and precursors of malignancy must be watched for, biopsy should be unhesitatingly used, and then the standard form of treatment followed.

In this form of cancer, radical surgery offers a brilliant prognosis by comparison to the general outlook for the treatment of carcinoma elsewhere in the genital tract. While it is true that metastatic extension to the regional lymph nodes is relatively rapid, nevertheless, subsequent progress of the disease from that point is slow and if adequate surgery is performed, a good therapeutic result is often obtained.

While only two five-year cures may be reported in this series at this time, subsequent follow-up of these patients, especially those in groups I and II, may show more gratifying results at a later study.

CONCLUSION:

1. In a consideration of genital carcinoma in the female, cancer of the vulva will occur in 5 per cent of all cases.

2. A large proportion of all vulvar carcinoma is epidermal in character, and metastasis to the regional lymph node is early and rapid.

3. Leukoplakic vulvitis is a pre-cancerous lesion and is responsible for approximately 50 per cent of all vulvar cancer. Vulvectomy is the treatment for leukoplakic vulvitis.

4. Pain and bleeding are late signs in carcinoma of the vulva as in most all forms of cancer.

5. Radical vulvectomy is the operation of choice in the treatment of carcinoma of the vulva.

6. Radical surgery is applicable to approximately 70 per cent of all vulvar malignancy.

7. Deep x-ray therapy and radium may be used pre and post operatively in the treatment of cancer of the vulva. In general, however, the therapeutic results of this form of management have been poor.

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The Patient and Obstetric Anesthesia

It is the maternal instinct to bear and rear children, and women, with few exceptions, look forward to this important event. The modern young woman is further impressed with the idea of motherhood since the advent of various state laws and the campaigns of different health organizations and societies for premarital physical examination and preconceptional advice. The lay magazines have for some time given much information that is avidly read by the public. These articles stimulate general discussion with friends, family, and well-wishers, all of whom add their ideas and relate their experiences to the one concerned. There is no doubt that these articles have done good, but in many instances they have promised more in the way of painless childbirth than is compatible with good obstetric practice. To combat some of the ill-effects of such lay magazine articles, N. J. Eastman, of Baltimore, has recently published a book entitled "Expectant Motherhood." It is recommended for expectant mothers.

Some patients visit their physicians with the attitude that they cannot go through with pregnancy, or they try to extract all kinds of promises that the delivery will be absolutely painless or that they will remember nothing about it. The fear of suffering and the incident financial problem of rearing children are real problems for the patient and must be properly dealt with by the physician. During early pregnancy is the optimal time for the physician to guide and direct the mental attitude of the patient by explaining the possibility of detrimental effects that sometimes result from too much amnesia, analgesia, and anesthesia during labor.

If the physician convinces the patient that childbirth is not abnormal and that she should expect some discomfort in the early stage of labor, and that everything possible will be done to make the delivery easy, comfortable, and safe for her and her baby, he will have rendered a great service and have done much to secure a cooperative patient. The psychologic preparation of the patient for anesthesia and delivery is more important than administration of drugs.

Obstetric anesthesia is not as adequate as is should be, from what is known today in medical science. The reason that the best obstetric anesthesia is not practiced is mainly a financial one. The answer to the problem of obstetric anesthesia is the organization of an anesthesia department in the average hospital, with a trained physician-anesthetist in charge.—John A. Kalb, M.D., Endicott, New York; N. Y. State Jour. of Med., Vol. 42, No. 18, Sept. 15, 1942.

Face Your Fears: Aanalyze them; daylight dismisses ghosts.—Fetterman.

Importance of Purposeful Splinting Following Injuries of the Hand

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THE injuries we have to deal with in industrial surgery are the most important in the upper limbs. Lacerations of skin, capsule, tendons and severed nerves, also fractures and dislocations, sometimes regarded as minor and trivial injuries presenting no difficulty in treatment, are actually of very great economic importance. Indeed in dealing with these it is often difficult to avoid serious incapacitation.

Rest is an absolute essential factor in injuries and infections of thumb, fingers and hand. The extremities should always be so fixed that movement of the whole or muscular action of a part is impossible. Since it is well known that the return lymphatic and venous flow are aided materially in their return flow by muscular action, elevation of the hand and arm higher than the shoulder will relieve the pain and swelling. Rest is best secured by splinting or by the use of a shell plaster. This relieves the pain, lessens the swelling and tends to promote healing. Hot moist heat seems to relieve the patient of a considerable amount of pain if infection is present.

Too often we see hot moist solutions continued for several days. It is not only useless, but harmful to continue the treatment after the process is under control, since it tends to favor congestion and exudation which if long continued, produces soggy and macerated hand and fingers, in which absorption is slow. As a consequence the infection is slowly repaired and a fibrous ankylosis of joints, adhesions and tendons, and atrophy and contraction of muscles and a later fibrosis in the different structures are favored.

In fractures, dislocations, lacerations of capsule, and other soft parts, a most careful attention to splinting is absolutely necessary. After a reduction of a given fracture, putting the parts to rest by a splint or plaster cast, be sure to watch the circulation of the injured extremity. Is there marked swelling? Is there severe pain? What is the color of the extremity? In plain words, is your dressing and bandage or your spint, or plaster cast too tight? Never put a circular plaster of paris splint on any acute injury or following operation without splitting your cast with a Gigli saw or cutting from one end to the other.

While trauma can cause a so-called "Volkmann's ischemic paralysis," the condition can be caused by too tight a bandage, splint or plaster of paris cast. Nature gives warning by the pain, swelling and color of the extremity. What does this mean? The arterial blood gets down to the extremity all right, although it may be impeded to a varying degree, but the venous circulation and the lymphatic circulation does not all get back, so that the return circulation is definitely interfered with. Hence the pain, swelling and change in color from a cyanosis to a waxy paleness.

The devilment has been done in the first 24 to 48 hours. There is an exudation of serum, an infiltration of cells, and a compression of muscle cells with an absolute destruction, then a secondary contraction in two or three weeks by the formation of fibrous connective tissue which always results in a secondary contraction in the process of healing, which may produce a claw hand and a marked deformity with a flexion contraction of the fingers and thumb, and an atrophy. This is not a "Volkmann's paralysis" at all but an acute myositis which results in a definite contracture of the flexor tendons and useless fingers, thumb and hand. Beware of constriction in any form and watch for this condition of acute myositis.

The best drug we have found to date for abrasions and lacerations is sulfathiazole powder. I think this is a real contribution in the prevention of infection and is of great use in the presence of infection. Even kangaroo tendon or catgut suture in severed tendons may turn the scales in favor of infection. It was exceedingly hard before the advent of sulfathiazole to patch up a severed tendon in compound injuries by doing a primary suture. This suture may cause the tragedy of a badly infected hand.

A dry wound heals sooner than a moist one. If you have a severely crushed and infected finger or thumb it should be amputated early rather than late.

Be careful of amputation of thumbs. Remember the function of the thumb is equal to that of all four fingers. The amputation of a thumb should only be considered as a last resort.

Bone grafting in non-union of phalanges of metacarpal bones can be successfully performed and is to be preferred to amputation. If a fractured shaft of the phalanges united with forward angulation, remember that flexion movements of the fingers, will in all probability be permanently limited.

Rest, proper splinting and elevation are the things to bear in mind in the treatment of injuries to the thumb, fingers and hand. The constant use of the other members and not splinting them should result in a favorable function.

NOTE—One of a series of editorial summaries on industrial medicine in time of war, writen at the request of the Editor.

Boron as a Trace Element

JONATHAN FORMAN, B.A., M.D.

GOOD nutrition depends upon many things. In the first place, it requires good foodstuffs, rich in the necessary elements. Furthermore, we must see to it that these elements are not lost in preservation, storage or shipment, and we must so prepare our food for the table that none of these essentials is lost. We must also eat such a variety of wholesome dishes from these that we get proportionately the right amount of each vital element.

Then, we must have a good digestion and so be able to assimilate what we eat or all of our efforts will be in vain. Finally, foodstuffs cannot be properly used unless we have a moderate, although adequate, amount of physical exercise to maintain body tone. Of such is a good nutrition made and so the little concentrated-tablet idea of healthful foods must go. We need and shall continue to need the right amount of natural foods.

This war has awakened our people to their need for a better nutrition. In dealing with the problem of feeding both the civilian population and the armed forces during the first World war, the emphasis was placed upon proteins, carbohydrates, and fats with some slight importance attached to water and minerals. Since then we have learned about vitamins. Insistence upon the presence of these essential accessory food elements has made a great difference in the health of our people and their fighting men.

But in these days when we hear so much about vitamins, it is becoming equally necessary to consider the importance of minerals in our diets. In the health program of many of our citizens there is a deficiency in some vitamin but what is not so often recognized is that just as often there is a deficiency of some essential mineral. This lack is brought about by selecting for cultivation varieties of plants which are naturally not so rich in these elements as are others, by over-refining our foodstuffs, or by growing them on mineral depleted soils.

Boron is essential to plant growth. It plays a part in the calcium metabolism and in the transportation and probably the utilization of carbohydrates. Boron's cultural value appears to be that of a catalytic fertilizer. It is widely distributed. The great extent, however, of boron deficiency in many Podzolic soils has been discovered within the last few years. In the east, southeast, in Michigan, and the Pacific northwest, many crops overcome otherwise baffling diseases with the application of boron. The soil of the midwest, particularly that west of the Mississippi seems to be better supplied with this element. Whenever the proportion of calcium to boron ions in the plant becomes unbalanced because of a lack of boron, the characteristics of boron deficiency develop. If this calcium-boron balance becomes upset because of a shortage of calcium or excess of boron, injury to the plant is likely to result. The strongly leached, gray, sandy-loam soils of the South Atlantic Costal Plains are often very low in boron and its availibility in them may be further reduced by the use of lime.

During the World's War I period and for some time following, considerable injury occurred to the potato crop from excess amount of boron in the fertilizer. This chemical came in as an adulterant of the potash which because of the state of war had to come from a new source and not from Germany as had been the custom. Subsequent experiments revealed that the bad effect on the yield of potatoes was due largely to the manner in which the borax was applied. This new potash fertilizer also got the tobacco growers of Virginia into trouble and for the same reasons. When they found out that boron as an impurity of their potash was injuring their crop, they became so indignant that they prevailed upon the state legislature to prohibit the sale of any fertilizer within the confines of Virginia which contained the smallest trace of boron. Without any boron whatever, their tobacco leaves began to curl and turn yellow. So the farmers began buying borax and adding about two pounds to the acre because they found out that in so doing they could increase the value of their crop up to $50.00 per acre. So recently the law prohibiting the presence of a little boron in fertilizer was repealed.

While boron in excess will injure the plant, still it is required in very small amounts by most plants and has a place in fertilization of fruit, truck, and field crops that is becoming increasingly important.

In our vegetables, boron deficiency produces "crack stems" of celery, brown heart of the table beets and turnips. Lettuce, cauliflower, tomatoes are also susceptible to boron shortage and more so than are potatoes. In fact, the greater susceptibility of the cauliflower is sometimes used as a test for boron deficiency in potato fields by spotting cauliflower plants in the field. Authorities are now recommending from two to five pounds of borax to the acre to prevent nutritional de-

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This is the second of a series of editorial summaries on the importance of the so-called trace mineral elements in Conservation, Nutrition, and Health.

ficiencies in cotton fields. It is believed but not proved that in citrus groves small water-soaked spots or flecks in the leaves, the spots becoming translucent as the leaves mature are those of a boron deficiency due to the dry season since they disappear rather quickly when the rains come. If this be the case, however, much must be learned about the dosage for to date most applications of borax in citrus groves have led to intoxications. Many experiments have been made in which plants were grown in sand or water with a lack of boron and from these experiments, which are in close agreement for the most part with what has been learned from regular, direct agricultural experiments, it is known that the characteristic effect of boron deficiency is the killing of growing points and the tips of the terminal points and a stimulation of the lateral buds. The internodes fail to grow and the plants take on a bushy appearance, the leaves thicken and roll upwards. With greater deficiency color disappears (chlorosis) and in severe cases purple pigment is developed. The leaf points and margins, especially those of the older leaves die prematurely. Starch congestion occurs in the leaf tissues. Furthermore in the advanced stages, the roots also fail to grow and are therefore short, thick, and have a brownish color. Still later the stems, the axillary buds and the internal parts of the later shoots become diseased. Finally, the nodes are attacked, the highest first and then the internodes.

It is therefore apparent that boron deficiency would more often affect the growers of plants which were raised for their leaves and less often those which were grown for their roots. Less often do we see boron deficient tubers. When we do, however, they are smaller and often have a ruptured surface and may have local discolorations below the skin.

Boron deficiency affects a wide range of plants. For instance, the symptom produced in alfalfa, red clover, alike, and lespedeza is a red discoloration of the leaves which is most important in these legumes grown for hay. In western United States and Canada, alfalfa shows instead yellow cholorsis as a result of the boron shortage.

Among the decidious fruits, the lack of boron is important. Serious damage each year is done to the apple crop in many parts of our country. The descriptive names which the apple growers have given to boron deficiency fruit are "drought spots" "external corks", "corky core", "internal cork", "drought dieback", "witch's broom", and "rosette".

This deficiency in orchards is usually the result of overliming and thus upsetting the calcium-boron ratio and likewise the application of nitrogen may so increase the growth of the tree thus its boron deficiency may be augmented to an appreciable extent. Boron deficiency is seldom seen in the peach orchards of our country but does occur in the commercial orchards of the Northwest.

Boron deficiency then is known to occur in certain parts of the United States and to be brought about by leaching, over-cropping, overliming, over-fertilizing and is augmented by droughts and by the rapid growth of the plants, in fact, by anything that disturbs the calcium-boron ratio. But when we come to study boron in animal metabolism, we have a lot less data to go on. The literature reports on it's distribution in the tissues of the guinea pig, the rabbit, the sheep, the ox, and the horse. We also find it recorded for milk, eggs, and chicken meat. It is felt now that boron exists normally in very small amounts in all animals being more common in species of marine origin. The amount of boron present is quite rich at birth and then rapidly declines for a short while. Later it increases with age and varies with the size of the animal as well as with different individuals. Apparently also the diet plays a major part in determining the boron content of the tissues.

In general, not much is known about the relationship between mineral content of the soil and the vitamin content of the plant. Such data as we do have suggests a rather close connection. For instance, the application of the right amount of borax on the ground of an apple orchard, under certain circumstances will double the vitamin A content of the fruit. This apparently is more than just an illustration of the fact that a healthy plant is rich in its vitamins.

Of its role in human nutrition little or nothing is known. One cannot, however, study the progress of our knowledge of this element in agriculture without coming to feel that one of these days we are going to find out that boron in minute trace does something to us and that its absence in our diet is to be guarded against.

Compensation Neurosis

Doubtless there are designing individuals who, following an accident in industry, hatch deep plots for reaping compensation far beyond that deserved. Also there are some who honestly overestimate their disabilities. Moreover, actual disability may exist, due to disturbed anatomic and psychologic relations, of a nature not discernible to the physician but painful nevertheless. But it is certainly true that a considerable number of puzzling medicolegal cases are actual deficiency neuropathics, readily amenable to intensive B_1 treatment. No accident case should be branded as a compensation neurosis and no patient should be condemned as a neurotic until B_1 treatment has been vigorously pursued for a reasonable time.—Oliver J. Morehead, M.D., Ritzville, Wash.; Northwest Med., Vol. 41, No. 10, October, 1942.

The Psychology of the Sick

CARL W. SAWYER, B.S., M.D.

The Author

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"THE Psychology of the Sick," to more simply state it, means the response sick persons make to the situation in which they are placed. Just as the physical situation of the sick person is altered from their normal situation, so is the response of the sick person altered and so is their psychology influenced and altered from their normal psychology.

In order to realize the changed attitude of the sick person one has but to recall their own actions and responses during one of their periods of illness, or one of the periods of illness of some member of their family. Even so simple an indisposition as a common sick headache, which most people have experienced, will illustrate changes made in a person by illness.

Since most of us are unable to properly evaluate our relationship to things about us, and people about us, or since we loathe, or hesitate to recall our actions when we are ill, let us analyze the situation that the sick person is placed in so that we may better understand why those who are ill develop such an altered psychology.

Let us choose for our analysis the sick person sufficiently ill to need hospital care. As "Gray Ladies," this will be the type of person you will meet in your new work.

What then is the mental attitude of the patient entering a hospital? To most people, even those who have been formerly hospitalized, the feeling is one of dread when the actual admittance to the hospital begins. Since sickness, even in minor conditions is an uncertain experience, with the possibility of a serious or at least a crippling termination to it; to the dread is added fear. And since illness strikes when we are unprepared and often times when we are quite unready for it, and since as a general rule it is in our own minds, a condition thrust upon us, the production of which we have nothing whatever to do with, we are both quite unready for it and we hold it as an unwelcome development. Therefore, there is likely to appear in us a definite feeling of resentment.

These three elements, dread, fear, and resentment, create mental attitudes which are far from normal and which bring great changes, almost total changes, in the sick person and their thinking and their response to their environment over their usual mental attitude and responses. Likewise these three conditions create reactions which, under normal states, we seldom meet and never experience to the same extreme degree, that they occur in the sick person. Fear occurs to us many times in our lives. Dread is a very common experience. Resentment appears on numerous occasions, but as a general rule, we keep them to ourselves, infrequently parading them before our associates. The expression of them, though, upon the admittance to the hospital becomes so great that it brings decided hesitancy, evasion, and sometimes actual rebellion. We seem to lose the sense of covering up our feelings but willingly disclose them to all about us. As a result of this unfavorable attitude with which the patient enters the hospital you and all others engaged in the care of the patient in the hospital are at a disadvantage and held in a bad light. Your task is to change this unfavorableness to one of hope, courage, safety, and willing cooperation.

Having entered the hospital the physical factors begin to bring their effect upon the patient.

Life at best is a hit and miss process but in spite of this most of us and remember "us", are at one time or another "the sick"—get ourselves and our surroundings organized and usually also routinized. Possibly we do not realize how much organized and routinized we are in normal life. Certainly we do not care to admit that we are routinized. Nevertheless it is true. Entering a hospial readily proves this.

Hospitals are unlike anything else in the world. To the patient first coming to them, they are disorderly; people are racing about with no purpose; no one seems to know anything about anything; everybody is busy, too busy in fact, to do what the patient wants done; there is no system, everybody is in everybody's way. This early impression is very greatly erroneous. Really back of every hospital, personnel, management, and staff there is the greatest order. The most minute attention is given to what the patient needs and there is an exceptionally fine and close team work. Nobody is really working at random. They are

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An address delivered before the "Gray Ladies", Marion, Ohio.

all definitely striving for the patient's welfare.

Not until one has lived in a hospital for a long time as an actual part of the working force of the hospital does one, to use a slang phrase, "get the hang of it". Then they discover that a hospital is different, very different from anything they have ever experienced or come in contact with before. Then they see that a hospital is organized to deliver what the patient needs, not what they want; that the hospital is not disorganized. That it is the patient that cannot adjust himself to the hospital. Life is truly reversed in a hospital. Unless you "outsiders" entering a hospital as a part of it, grasp this situation you will bring real disorganization and real confusion with you, rather than the assistance which the hospital hoped you would bring. Don't be too hasty to criticize or to do things differently. Remember the hospital existed before you came to it; it will go on long after you have left. If you can add one small idea to its usefulness we, as hospital people, will thank you most heartily, and sincerely.

NEW CUSTOMS OF HOSPITALS

Having once overcome the shock of the physical entering of the hospital and its total reversal of normal life, the sick person rapidly discovers another startling fact. The individuality and personality of the patient is rapidly done away with. With a startling swiftness the patient finds himself, as he or she feels, "merely another patient", "a guinea pig" and "a field for experimentation and exploration" for quarreling doctors and inhuman nurses. Without his willingness and understanding he is thumped, punctured, punched and gone over needlessly, unmercifully, unreservedly. He is stripped of his clothing, he is examined in what he thinks is an immodest way and he is given no opportunities to present his own idea about matters. It is not until he leaves the hospital some time later, and gets back into normal life, a well individual again, that he appreciates the thoroughness with which he was examined and studied.

Hospitals not only strip the sick person of their clothing but of all the other outer coverings as well. Not only their skeleton, but all of their germ infected, defective, and disabled tissues as well, are put on display. The patient's thoughts, emotions, and personal qualities are laid nude and visible. Their past stands out clearly, especially the darker spots. Their present is as striking as any road map, and their future is, in many instances, made apparent. In other words, to the doctor and nurse the entire individual is laid bare. Worse yet these qualities are oftentimes made apparent to the patient much to their discomfort and chagrin. Only later does the patient realize that all of this is for their welfare and that due to the ethics of the medical and nursing profession, the facts deducted go no further than themselves. As "Gray Ladies", it is quite necessary that you maintain the silence and evasiveness of the real doctor and nurse when you leave the hospital. You should always keep in mind that outside the hospital you have seen nothing, you have done nothing, and you have heard nothing, while you were in the hospital.

Social customs demand certain social procedures. Many patients expect a continuance of these within the walls of the hospital just as they have expected them outside of the hospital. They look for the same social difference, the same social niceties, the same social rank. They endeavor to provide for the continuance of the fulfillment of these social customs by special nurses, special surroundings, special privileges and special attention. Before they have been in a hospital very long, they learn that these special grants they have asked for really avail them only partial relief from the new customs of the hospital and the continuance of their normal social life. Disease knows no station in life. Pain attacks all equally. Death enters regardless of social protection or standard. The true physician and nurse realize this and so far as they can they treat all patients alike, excepting as the conditions from which they are suffering demand different treatment. To the doctor the human body is simply the battle ground over which he must fight. The nurse knows there is no royal road to recovery. She makes life as enjoyable as possible, but she realizes fully that her patients must experience some pain, some distress, some discomfort, and that they must display some courage, some self control, and some unselfishness. The true doctor and nurse exert their greatest abilities at all times. They show difference and deference when possible without loss of opportunities to win a successful recovery for their patients. Only because of the type of patient not because of their accomplishments, their money, or their social standing, does the doctor and nurse make any real distinction. As "Gray Ladies", you must do your best for all those coming under your care. Do not accept the task of going into this work if you have personal likes and dislikes which will keep you from doing your best for the patients you contact.

In normal life we have friends, acquaintances and admirers. We shower the ill with attention. We make personal visits, send gifts, and do kindnesses without end. In this way without knowing it, we use up much valuable nursing time and room space and bring much extra work to those caring for the sick. We forget that the patient is fighting a serious battle in which they need the full marshalling of all of their physical forces. One visitor remains ten minutes only, but oftentimes during a day the patients themselves put in as much as two to four hours with visitors. It is a loss of precious time. If as "Gray Ladies", you have friends come under your care beware of taking advantage of your hospital position to visit with them. This does not mean that you should be unsocial and totally frigid, but you should leave the amenities of normal social intercourse, to be carried on outside not inside the hospital walls. If you intend to be a socialite or a glamorous individual stick to the bridge table, the drawing room, the banquet table, and the reception line. To your grief you will soon find that the hospital is no place in which to practice any of these functions.

Many other common social functions could be mentioned in illustrating the differences between normal life and the life of the sick individual, but sufficient has been presented to show you the changed position you will be placed in and to illustrate the factors which tend to change the psychology of the sick person.

ECONOMIC PROBLEMS HARASS THE ILL

Economic problems harass the ill just as they do the well. Due to the loss of their services in their businesses and to the unexpectedness of the expenditure of money which their hospitalization entails the sick person is abnormally worried and concerned along these lines. Many endeavor to meet the conditions of economic life by trying to conduct their affairs from their sick bed and through those about them. Assistance should be provided to help in the actually needed matters but you should not lend yourselves to too complete cooperation along these lines without the advice and knowledge of the doctor in charge of the case. Neither should you arouse worries in the patient's minds by words you carry to them regarding outside conditions nor should you in any way remark about their economic situation in the hospital.

Illness discloses many startling revelations in the dress and habits of persons that are far from the actual facts as they seem to exist in normal life. Beauty too often, both in appearance and action is not even skin deep in the hospital. Often times it goes only below the first layer of rouge and the outermost garment. Be prepared for shocks, surprises, and a decided revamping of your personal and prehospital opinions. The appearance of many of the folks about you as you socially know them has been brought about only after careful boudoir preparation. The suave, kindly, respectful individual may have developed all of these characteristics simply as a business procedure. Caught unawares and unprepared, startling disclosures are made. That this is true becomes a source of great worry, concern, aggravation, chagrin, to the sick individual and helps immensely in altering their psychology. As "Gray Ladies", be careful not to express by word, deed, or expression, any of the astonishment which will come to you. Keep your opinions to yourselves and never disclose outside of the hospital your findings nor your knowledge.

These and many other conditions which might be enumerated all serve to alter the normal psychology of the well and to bring about the greatly reversed psychology of the sick. Add to these, fever, pain, auto intoxication, injury, mutilation, the removal of parts, the disorganization of physiological functions and you have full ground for an understanding, an explanation, and an excuse for the attitudes, the alterations the unreasonableness, and the complaining, of the sick individual. Aside from the attitude engendered by the environmental circumstances mentioned before, the sick person will develop a personal psychology regarding himself and his condition. Quite infrequently the attitude of the sick person will be one of optimism and fearlessness. Fortunate are you if your duties bring you in contact with this type of patient. Occasionally a patient appears who, quickly organizing himself or herself in the hospital situation, adopts an attitude of courage and determination. Here again fortunate are those who have the care of this patient as their duty.

A third group, which now days with the high cost of hospitalization is very infrequent, presents those who still cling to the old New England idea of "enjoying a spell of sickness". This person with this psychology is pleasant outwardly. They are grateful but quite demanding to have service and attention, and extreme comfort. They add to the hospital load and rob needing patients of essential attention. Follow your orders in these cases but do not neglect the real sick to look after the one "enjoying" their illness.

By far, though, the greater number of sick persons develop a psychology expressing, along with many others, their interesting traits. Traits which demand attention from all those whose duties are caring for the sick.

The first and most serious and usually the most severe of these traits is despondency. Part of this despondency comes from the conditions early enumerated in this address. Part comes from the general tendency of human beings to become gloomy and down hearted when there is nothing else to do. But the greatest producer of despondency is worry and concern regarding one's self. The uncertainty of the immediate future, the misunderstanding of their condition, and a host of minor things contribute to the creation and depth of this trait. To combat it demands all the resources the doctor and the nurse can rally. Most friends and visitors feel that they have solved despondency by "pep talks", "encouraging speeches", and "glib promises of improvement". Some friends and visitors even relate their own experiences as illustrations of how the condition the patient is suffering from "comes out so well". In many of these instances the patient knows and the doctor and nurse know that what the visitor suffered from and what the patient suffers from are far different conditions. Friends and visitors should always remember that they very probably do not know all the facts, nor how shallow and ineffective their statements made to the patient are in the end.

If you remain in the hospital long enough hours out of the twenty-four you will discover that sick people carry over from their normal social life a "front" which they put on for visitors. During the hours when visitors are not present patients are not so brave nor so cheerful, nor so pleasant. To these sick persons, through these times of despondency give your sincere interest and your deepest consideration. Remember, though, that the sick are not babies who are to be talked to in "baby talk" nor fools who can be lulled and satisfied with illogical but fine sounding reasoning or statements.

PROMINENT PSYCHOLOGICAL TRAIT IS APPREHENSION

The second prominent psychological trait expressed by the sick is apprehension. This is different from the fear spoken of earlier. It is a doubtful and quizzical attitude shown by the patient regarding his own state and condition. He tries in every way to find out about himself. He becomes disturbed by a change in symptoms, misinterprets much that the doctor and nurse tells him, searches for an unfavorable reason for every facial expression and suspicious movement that is made by those in care of him and by those whom he thinks understands and knows about his condition. This apprehension is based on the patient's belief that the truth is being kept from him. Also upon the fact that they have their own preconceived ideas about their conditions and its outcome. In their apprehension and quizzing they trying to find someone who, at least inadvertently, agrees with them. To these patients even good reports are not believed and a change in symptoms or medicines, or treatments, are an indication that something is wrong and that they are worse. Suspicion goes with apprehension and the two make a nightmare team that robs the patient of comfort and peace. Even following recovery this condition is liable to continue long after the original illness has disappeared.

Many patients are sure, for an extended period following their recovery, that the doctor is not or has not been telling them the truth. Differences of opinion and expression are the factors that create apprehensiveness. Be sure that you do not add to this condition by contributing your own wording and version regarding the patient's trouble and do not pass along the service room gossip of the nurses, the hallway conferences of the doctors or the statements of a competing doctor nor the comments of visitors and other patients. Neither repeat what Mr. and Mrs. so and so heard from someone else who likewise heard it from someone else. It is much better to say nothing. The patient will concoct enough suspicion and causes of apprehension without you, a layman, adding your bit.

FORMS OF EMOTIONALISM

The third psychological trait expressed by the sick is emotionalism. Crying, grief, and depression are the most common emotionalisms. To the visitor they are seldom apparent for here again the sick person carries into the hospital remnants of his old social life, his pride or the determination that no one can say that he is a "quitter." But just as you get an entirely different idea about a girl by calling upon her unexpectedly at 7 A. M. than you do when you call upon her at 9 P. M. by prearrangement, you will get a different idea of the smiling, brave, cheerful, patient by seeing him when in pain, distress, or when undergoing many of the daily procedures necessary in a hospital. Be ready at all times to hide your surprise and never carry any of your hospital pictures and memories into the drawing room, social functions, or bridge games.

Other forms of emotionalism displayed are irritability, anger, excitement, and in some instances romance. You will undoubtedly be surprised at how irritable certain people can become. How readily fits of anger extending into very violent rages, can be expressed. So called hysterical spells, excited states, and various types of agitation will startle you.

As for the romance, should it occur about you, it will prove interesting and a mild diversion to the many serious situations which you will encounter. Keep in mind that the patient's field of activity is greatly limited by the hospital walls and that emotional imbalance is the custom with the sick. Also that forgetfulness is the customary psychological trait when one gets back into the world again. Were it not true we would hear much more frequently of hospital romantic emotionalism terminating at the altar.

Thus we come to the end of this discourse on the psychology of the sick. Seemingly we have taken disagreeable features rather than pleasant ones to discuss with you. We have done this knowing that the problems we have tried to bring out are the main ones which must be met and which are so frequently met in the hospital. You will meet many fine people in your work as "Gray Ladies". You will see displays of courage far beyond anything you have thought possible. You will witness the development of friendships, likes and sincere interests, deeper than outside life conceives. You will see all of the things that you witness in life but you will see them to a greater degree than you had ever imagined existed.

Possibly my presentation has been too serious, but to me both from a rather extended period of illness years ago, and from many years in caring for the sick, illness is a serious business. It robs its victim of the enjoyments of life, it may even make life a living torture, and infrequently robs life of life itself. To the doctor and the nurse it brings grave and serious responsibility, deep concern and trying worries.

Please remember that in your hospital experience for good or for evil, you can do much more than pass magazines, arrange flowers, and visit with the patients. You can bring to them sincere interest, true solace, and well founded courage.

Also, remember that when you enter the sick chamber, life and death will be there also; the works of Lister, Pasteur, Madam Curie, and the thousands of others who have contributed to modern medical science will be with you; the principles established by Florence Nightingale, Clara Barton, and the many other women who have contributed to the development of the nursing profession will be around you, and guiding all will be the Deity.

The tuberculin test should be a part of the preschool examination. Tuberculosis seldom develops in its clinically serious forms in children but they are easily infected with the germs of the disease, which may remain dormant until they reach the teen age or early adult life, and then cause trouble. Through the tuberculin test it is possible to determine whether or not a child has been infected. When the test is positive every effort should be made to find the source of infection and to protect the child from further exposure to the disease. It is important to point out here that precaution should be taken to make sure that maids and other household employees are free from tuberculosis by having them tuberculin tested and X-rayed if positive to the test. —Chester A. Stewart, M.D., Louisiana News in Brief, Sept.-Oct., 1941.

Coronary Disease

A physiologic approach to the study of coronary disease has developed. Should even a momentary discrepancy between the metabolic supply and demand of the myocardium develop coronary insufficiency is said to exist. The coronary insufficiency may be caused by factors which increase the metabolic requirements of the myocardium or may be due to factors which lead to a decreased coronary bloodflow or to both. This inadequacy may be relative rather than absolute, i. e., a coronary circulation, sufficient under ordinary circumstances, may become relatively insufficient as the result of a sudden increase in the work of the heart.

Exertion, excitement, emotion, food, cold, tobacco, adrenalin, etc., are factors frequently responsible for the increased load on the heart. Rapid or irregular heart action, due to its inefficiency, may initiate coronary failure. Likewise, cardiac hypertrophy may be responsible since there is no associated increase in the number of coronary capillaries and each must supply an area of muscle larger than normal.

Coronary disease is discussed from a physiologic point of view. Coronary insufficiency may be due to factors which increase the work of the heart or which lead to a decrease in the coronary circulation or both. Exertion, excitement, emotion, food, cold, tobacco, adrenalin, hemorrhage, shock, asphyxia and movements, postures, dreams and vasomoter changes during sleep are most commonly responsible for an increase in the load of the heart. The most common cause for decreased coronary flow is arteriosclerosis. An incipient coronary insufficiency is recognized. A transitory form is usually recognized as angina pectoris; rarely as paroxysmal dyspnea or acute pulmonary edema. Chronic coronory insufficiency of a benign, non-progressive type or of a malignant, progressive nature may develop.

Coronary failure results with further increase in the demands on the heart or with further reduction of its available blood supply. A temporary form many result from pulmonary embolism, cor pulmonale, pericarditis, dissecting aneurysm, trauma, hypertensive crisis, aortic stenosis, heart block, heart failure, acute abdominal conditions, post-operative complications and infections. Rarely, it is seen in an acute form, without detectable pathologic basis; death usually being due to ventricular fibrillation or cardiac standstill. Although angina pectoris and coronary failure have the same physiologic basis in reversible myocardial ischemia of shorter or longer duration, coronary occlusion, on the other hand, based as it is on irreversible myocardial ischemia, refer to an entirely different pathologic event, i.e,. myocardial infarction.—J. Bailey Carter, M.D., Chicago; Ill. Med. Jour., Vol. 82, No. 3, Sept. 1942.

Examining for Life Insurance

HOWARD DITTRICK, M.D.

IF the importance of insurance medicine in medical practice were judged by discussion evoked in medical journals it would be inferred that this field played a distinctly minor role. A sounder evaluation of this relationship is shown in the following conservative estimates for 1936. These were furnished by the Association of Life Insurance Medical Directors of America and the Medical Section of the American Life Convention. During that year, of an estimated income for the entire American medical profession amounting to 850 million dollars, we note that fees from compensation insurance companies were 100 million dollars; fees from fraternal organizations, state insurers, self carriers, contract practice, group and industrial payments 300 million dollars; and fees paid to doctors by over two hundred old line insurance companies for medical examinations were over 70 million dollars, making a total of over 200 million dollars. In other words about one fourth of the income of American physicians is derived from fees paid by various classes of insurance companies.

Perhaps the common impression that insurance income forms so small a proportion of physicians' earnings, is due to a former tendency to be secretive about insurance activities. Physicians were not particularly proud of such a connection and used it solely as a pot boiler. However, with more careful selection and with higher qualifications demanded by the larger companies, the professional status of the medical examiner has been steadily rising.

After an experience of almost 40 years as a life insurance examiner some personal observations may be of interest to readers. This experience began with the lowly inspection report on industrial policies for which the examiner was paid 25 cents and has gradually developed into examinations involving many millions of dollars in policies. Association with small as well as large companies, and even with fraternal organizations, has all contributed to form definite impressions which may be helpful to younger men in this field of practice.

What are the qualifications necessary for success in insurance medicine? On first thought the answer would imply that an examiner must be an outstanding internist. This is a desirable asset, but only too often such a man can not reconcile his clinical experience with the mass of statistical data available to home office executives. For instance, the internist sees the applicant with a faint systolic blow as an individual, while the company views this case as one of a group, and insures the group, not the individual. He may even resent adverse action upon such a case which he has recommended, and give up the job in disgust. Obviously a good examiner must be capable of conducting a thorough physical examination, but that is not all. He must be an accurate reporter, one who will not assume responsibility for what should and what should not be reported to the home office. Symptoms and history of illnesses which may seem trivial to the examiner often fit into a different picture when considered along with confidential information available only to the home office. In this connection it is well to bear in mind that when the medical report must be returned to the local office, the home office will treat confidentially any unfavorable findings sent there directly.

The Author

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The examiner must also be insurance minded and capable of cooperating with the agent and the applicant. He must keep appointments meticulously and answer home office correspondence promptly. He is on the spot and should be able to create a pen picture of the applicant in the medical report. A summing up of his impressions will be appreciated by the medical department. One medical director writes, "Our accredited examiners should be honest, outstanding men of their community, who show by repeated trials that they are able to withstand pressure from any source and to note exactly what they find in their answers propounded on the medical blank."

There are many intriguing angles to insurance medicine. If there is no enjoyment to the examiner in pursuing it, both the company and the appointee will profit from his resignation. Although only about one applicant in ten is a poor risk, there is a zest in the challenge presented by that one case. That is the case which will attempt to cover up all incriminating evidence. Even though no X-ray or other laboratory equip-

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Submitted September 28, 1942.

ment is at the examiner's disposal, he has two eyes, two ears, two hands and a nose. He should keep them all working. He is provided with a medical form which has been precisely worked out to aid him in making the examination. This must be followed accurately. As he asks the required questions he must use his two eyes to detect tell-tale reactions and have those two ears on the alert for admissions of "slight attacks." Many a bad risk talks himself out of a policy because the examiner proved to be a good listener.

RECORDING APPLICANT'S ANSWERS IMPORTANT

Each question must be asked and the applicant's answer recorded. Some time the examiner may have to appear on the witness stand where the opposing counsel, pointing to the question "Have you ever been a patient in a hospital or sanitarium?", will thunder at the witness "Did you ask the insured that question?" Upon the asking of that particular question on the blank, the action of the court may be determined.

The examination may be even more revealing. Automatically the examiner has been inspecting the applicant since he entered the office. Presently the examiner utters those four magic words "Please remove your shirt". If the applicant is a poor risk it then can be more readily determined, and if he is a good risk he will be favorably impressed toward the examiner and the company represented. A routine technique should be developed and scrupulously followed. Those two hands should be brought into play. I am reminded of a casual superficial palpation of the abdominal wall of an applicant who winced as my hand passed over an undescended testicle. However, strange though it may seem, more cases of tuberculosis are detected by inspection and certain facts in the history than by physical signs. Anemia, loss of weight, cough, or general appearance may afford the clue.

Occasionally the examiner may be convinced that the risk is undesirable and yet the reason may not be apparent. Furthermore he realizes that through insurance records the home office probably has complete information about the applicant's physical condition. The examiner may feel chagrined over his failure to elicit the unfavorable data. If he will but follow through each question faithfully, the truth will out even though it may be deferred until the last step in the urinalysis reveals a tell-tale color of sugar.

There are many other features of the examination which no longer disturb the seasoned examiner. The hypertensive business man who must be looked over at 8:30 a. m. in his home, the man who has a rapid pulse only when he sees a doctor, the man with a waist of 46 inches who states his weight as 185 pounds. There is also the man who has only 15 minutes for the examination but insists on spending an extra half hour seeking free advice. But the prize package is the man whose face lights up like a full moon when he is asked to void the required specimen, and replies, "You are out of luck, doctor, I voided just before I left my office." If such an applicant is asked to return to your office, it may be helpful to the next examiner.

The examination for large policies is often unsatisfactory to both the examiner and home office. The agent is all hot and bothered about the outcome. The examiner is instructed to handle the applicant with the utmost caution, an attitude not in keeping with thoroughness. The home office has two strikes against the man when the report arrives, because of the strain business has exacted by the time success enables him to pay a large premium. The examiner has been advised to use his eyes, his ears, his hands, and his nose. In these cases he is cautioned not to use, but to hold, his tongue.

We have spoken of applicants who attempt to cover up unfavorable information. In contrast, most patients try to give all information, but even some of these try to bury some important past experience. In insurance disability investigations, on the other hand, we meet the individual who "doth protest too much." Here we encounter a diversity of problems embracing the entire field of medicine, that tax and develop our ability as medical detectives and prognosticians. While taking the pulse, the examiner will be looking in the palms for signs of toil. He will inspect the soles of the insured's shoes to confirm the claim of hemiplegia. The examiner will watch the claimant carefully as he removes his clothing and try to make examinations when the patient is off his guard. When the opportunity presents, consulation with examiners for other companies involved in the same case will be helpful in arriving at reasonable and just reports.

RELATIONSHIP WITH AGENCY FORCE

So much for the examination. How can the examiner maintain a pleasant relationship with the agency force? While some agencies expect the examiner to drop everything and attend to their work at once, others are more considerate and willing to have him adjust their appointments to his private practice. With the first type of agency the agent has all the responsibility regarding the appointment. With the second type, because of the splendid cooperation, the medical examiner will bend backward to make and follow through an appointment for the examination. Furthermore, I have seen agencies in which there exists so high a spirit of loyalty to the company that the agents would not willingly submit a poor risk. Here the agent has already made the first selection and rejections will be few. From another agency each case would be under suspicion. Unfortunately the agent's commission depends upon favorable action. All too often the agent's good opinion of the examiner depends upon these favorable decisions. The examiner is perhaps pictured in the mind of the agent like the doctor in the old Goltz Dutch prints as God, Angel, Man, Devil, according to the number of policies issued. But it is really not as bad as that. The majority of agents appreciate a thorough examination and will respect good work.

Happy is the examiner whose company possesses a medical department entirely independent of the production force. If this is not the case, the tenure of his appointment is very uncertain. A few rejections may result in exclusion from examinations. With most of the old line companies, the appointed examiner's position is secure as long as he is faithful and efficient. Honest effort will meet with the wholehearted support not only of the medical director, but often, if need be, of other executives of the company as well.

RESPONSIBILITY OF THE MEDICAL DEPARTMENT

In speaking of medical departments I wish to pay tribute to the medical directors. In Cleveland we have been favored by having many of these officers talk to our Medical Examiners Society. They have proved to be excellent men, capable, cooperative, understanding. If the medical examiner is interested in pursuing his insurance work and desirous of getting all that he can out of it, he should by all means know the medical director. Be assured that the medical director is just as anxious to know the examiner. One of these officials in a company with which I had no connection spent two hours showing me how his company was handling heart cases. The Association of Medical Directors sponsors research in the rich store of health statistics at its disposal. Information so obtained is shared by all the companies and much of it is also used in problems of clinical medicine. The routine developed by the medical director is well founded and merits faithful adherence. He may sometimes even seem crotchety about it and failure to abide by it may lead to dismissal. Because the medical director has made a serious study of his work, he has demanded more careful work among his appointees. This is one of the reasons, previously mentioned, for the elevation of the status of insurance examiners.

Dr. E. G. Dewis, speaking before the American Life Convention in June 1942, stressed the responsibility of the medical department of the life insurance company in developing the field examiner's efficiency. He stated "And if the companies we represent consider it advisable to expend large sums of money in the development and training of the agency forces, it should be equally important for us to give more liberally of our time and thought in maintaining a high standard for our medical personnel. And should not our efforts in this direction be along still broader lines without attempt to standardize any rigid or routine set of procedures?"

"In our company," continued Dr. Dewis, "we are endeavoring to recognize the numerous complex problems that continually confront our examining physicians and to adopt a more sympathetic attitude towards their many difficulties. We have felt that we should take them even more into our confidence in order that they might have a better conception of our underwriting principles and our various methods of selection, rather than presumptuously attempting to educate them along purely medical lines".

However, not everything in the Home Office appears perfect to the man in the field. Some companies, for instance, when abnormalities in the urine or increases in blood pressure are found, persist in penalizing the examiner by requiring additional observations without remuneration. Probably this occurs only in those companies where the production department overshadows the medical department. Most companies recognize the wisdom of compensating examiners for these extra services, thus doing justice to honest reporting.

If we survey the possibilities for the physician in the field of life insurance, we find an opportunity for a part time occupation which is challenging, diversified and remunerative. The very fact that the examiner retains an interest in private practice increases his efficiency in the selection of risks. To a man who has a bent for the theoretical, preventive, or statistical side of medicine, insurance medicine beckons as a career. The examiner who receives an appointment in an active insurance company, who earns and maintains the confidence of his medical director, and who perchance enjoys the respect of the agency force, is indeed occupying an enviable niche in medical practice.

1021 Prospect Avenue.

A reasonably safe wager would be that one could approach any college president in the United States, and, with a minimum of sales talk, sell him a fistful of Christmas Seals. The hitch comes when we try to sell many of these leaders the very program their own money has gone to support. It is to be feared that sometimes we contribute to worthy causes in order to be spared further thought about them or contact with their unpleasant realities. Too many college administrators, even in these enlightened days, refuse to admit the necessity for early diagnosis among their own students, though they will give generously to an agency whose chief concern is early diagnosis for all who need it.—Charles A. Lyght, M.D., Journal-Lancet, Apr. 1942.

Pulmonary Actinomycosis

Case Record Presenting Clinical Problems

FREDERIC T. KAPP, M.D.

J. D., a 61 year old white man, was first admitted to the Cleveland City Hospital on April 10, 1941, complaining of chest pain. During the previous four months he had had repeated severe piercing pains extending from the left nipple to the angle of the left scapula. These attacks were initiated by coughing and deep breathing. Throughout the two months before hospitalization there was a persistent cough productive of scanty colorless sputum. The patient had lost 20 pounds since the onset of the symptoms. There had been no chills, fever or shortness of breath.

The patient had been born in Lithuania and had lived in the United States for the past 35 years. Until five years before the present illness he worked in a hardware foundry. Since then he had performed outdoor work with the Works Progress Administration. The exact nature of this work is not known.

Four years before admission his chest was fluoroscoped at Cleveland City Hospital following an automobile accident. Nothing unusual was seen.

Physical examination on admission showed a well developed lean man. His temperature was 38.4° C., pulse 88, respiration 20 and blood pressure 135/85. Abnormal findings were limited to the chest. There were decreased fremitus over the left upper chest anteriorly and bronchial breathing at the left lung base.

There were 3,500,000 red blood cells and 10,900 white blood cells per cu. mm. of blood and 11.5 Gm. of hemoglobin per 100 cc. of blood. The urine was not abnormal. The Kline flocculation test on the blood was negative. Chest roentgenogram showed an area of streaked infiltration leading outward from the left hilum. Bronchoscopy and bronchograms failed to show any pathologic process. Aspiration biopsy of the left lung under fluoroscopic control was reported as containing blood and collections of neutrophilic polymorphonuclear leucocytes. No neoplastic cells were found. During the patient's hospital stay of 24 days his temperature ranged between 36.8 and 38.4° C. He was discharged with a diagnosis of bronchogenic carcinoma of the left lung.

For the next 6½ months the patient was followed in the Out-Patient Department. He was treated by irradiation (6000 R. to the left lung). Weakness and dyspnea developed, the weight loss continued, the left-sided chest pain became more frequent and severe, and the cough was accompanied by thick mucus containing pus and small amounts of blood. After five months the patient complained of a constant boring pain in the middle of his back.

He was readmitted to the hospital on Nov. 18, 1941. Physical examination at this time showed emaciation, chest findings as before and tenderness over the lower thoracic spine. According to the Roentgen examination there was further extension of the infiltration into the left lung and also slight involvement of the right lung. There was no demonstrable cavitation. X-ray of the vertebral column showed almost complete collaps of the body of the ninth thoracic vertebra.

The patient became progressively worse. His temperature fluctuated between 37 and 39° C. Morphine was required to relieve the chest and back pain. Death occurred Dec. 26, 1941. The final clinical diagnosis was bronchogenic carcinoma of the left lung with extension to the right lung and metastases to the ninth thoracic vertebra.

The important findings at autopsy (14161) were in the lungs and lower thoracic spine. The hilic region of the left lung, as well as the lower part of the upper lobe and almost the entire lower lobe, was indurated and noncrepitant. These regions sectioned with increased resistance and revealed a compact grayish-yellow tissue honeycombed by small abscesses. The bronchi were dilated and contained thick yellow pus. Similar but less extensive changes were present in the right lung. The posterior and medial portions of the lower lobes of both lungs were densely adherent to the lateral aspects of the vertebral column. A layer of gray tissue attaining a thickness of 1.5 cm. extended from the seventh to the twelfth thoracic vertebrae on their anterior and lateral aspects. Sections of this tissue showed numerous small yellow foci, many of which were soft and purulent. This tissue closely resembled that in the affected portions of the lungs and there was direct continuity of the prevertebral and pulmonary lesions.

Shallow erosions of the anterior and lateral aspects of the underlying vertebral bodies were seen when the adherent prevertebral mass was dissected away. The body of the ninth thoracic vertebra was collapsed and almost completely replaced by an abscess cavity containing creamy yellow fluid and bone spicules. On the anterior surface of the dura mater at this level there was a proliferation of gray tissue but the lesion did not extend to the inner surface of this membrane nor did it involve the leptomeninges.

Microscopic examination showed suppurative and chronic granulomatous inflammation of the lungs, the bronchi, the prevertebral tissues and the body of the ninth thoracic vertebra. The lungs were atelectacic and fibrous. The typical lesion contained a central area of fibrin and polymorphonuclear cells, plasma cells and lymphocytes, and in the pulmonary alveoli large monoculear cells. There were many characteristic colonies of actinomyces in the bronchi and in other suppurative foci.

The principal anatomical diagnosis was actinomycosis of the lungs with extension to the

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This is the twelfth of a series of "Case Records Presenting Clinical Problems", selected by Dr. H. T. Karsner from the Clinical Pathological Conferences of the Department of Pathology, Cleveland City Hospital.

From the Department of Pathology of Cleveland City Hospital and the Institute of Pathology, Western Reserve University, Cleveland, Ohio.

prevertebral tissues and lower thoracic vertebrae.

Pulmonary actinomycosis, although not common, should be considered in the differential diagnosis of any chronic invasive and destructive lesion of the lung. The characteristic combination of a slow extensive fibrosis, suppuration and multiple small abscess formation, with spread by direct extension to the adjacent vertebral column, is well represented in this case. In many cases there is a definite history of exposure to the organism such as working with cattle. Draining sinuses of the chest wall are frequently encountered.

Clinically two diagnoses were entertained in this case, bronchogenic carcinoma and tuberculosis. However, the long-standing severe chest pain and the infiltrative pulmonary lesion as seen in the roentgenogram strongly favored the former diagnosis. The later occurrence of a rarefying process in a thoracic vertebra was interpreted as metastatic malignant tumor and therefore corroborative evidence of bronchogenic carcinoma. However, it is to be noted that there was no positive biopsy and that no tumor was demonstrated by bronchoscopy. A clinical omission was the failure to study the sputum in which "sulphur granules" might well have been found. The failure to find these diagnostic bodies in the aspiration biopsy may be attributed to the small amount of material obtained by this procedure.

Suggestions for Preventing War Neuroses

1. Reject the mentally unstable and those who will be unable to stand up under a reasonable amount of stress and strain. This demands careful psychiatric examination of all persons being taken into the armed forces.
2. Build up morale and train civilians in air raid defense work.
3. Provide adequate facilities for treatment. Appoint divisional psychiatrists. (This was done during the last war, but so far the Army has not done so during this war.) Treat all cases promptly, not allowing patients to be evacuated to civilian centers unless it is decided that such men are not to return to combat service.
4. Develop a public opinion which, while not holding a man blameworthy, will recognize that a war neurosis, like any other sickness, indicates that the individual is inadequate to deal with his environment.
5. Do not allow financial compensation for war veterans to depend upon the retention of a neurosis. If a man is paid to be sick, it makes it more difficult for him to get well. Such an arrangement merely substitutes a compensation neurosis for the war neurosis.—Karl M. Bowman, M.D., San Francisco; N. Y. State Jour. of Med., Vol. 42, No. 18, September 15, 1942.

The Future Role of the General Practitioner in Tuberculosis

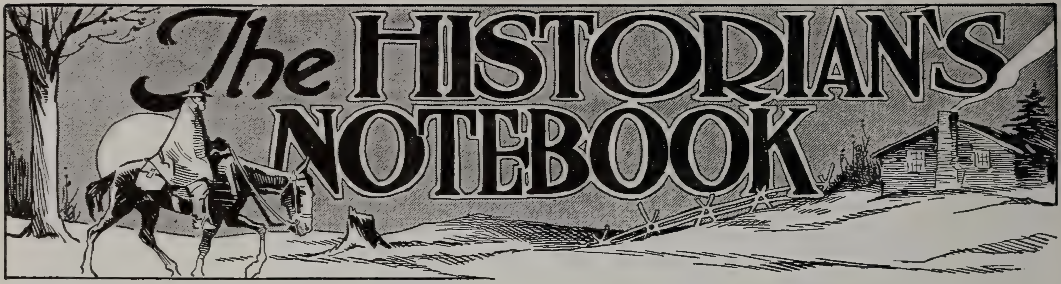
Where tuberculous infections are still prevalent in childhood and the incidence of tuberculosis of endogenous origin and of long insidious onset is still high, x-ray surveys will still yield many minimal lesions clinically significant of chronic pulmonary tuberculosis. That such "nests" still exist throughout various parts of the country is well known. These as well as the older age groups still account for the existing old type chronic pulmonary tuberculosis.

In the community at large, however, the decline of tuberculosis has advanced to a point where, particularly among the younger age groups, pulmonary tuberculosis is now of the new type.

It follows that in the present epidemiologic phase, prevention of open pulmonary tuberculosis, will require extension of the principle of continuous x-ray control to embrace practically every home in the community. It may be taken for granted that such x-ray surveys will be extended to ever wider sections of our population. The armed forces are already ferreting out thousands of cases with minimal lesions in young men, many of which are bound to be clinically significant early tuberculosis. To these, many more cases are bound to be added by other surveys in industries and municipalities. Even in the best equipped communities there are not enough beds available for all these cases. Indeed, the available beds should be reserved exclusively for open cases, as isolation of these is the basic need for prevention of spread.

We believe it is wrong to place these early or recently infected young adults in tuberculosis hospitals. Interruption of contact is a good principle for adults as it was for children. As in adult infections, if the sources are extrafamilial, the house environment serves also the purpose of preventing further contact. We are dealing with closed lesions and their bearers need not be hospitalized. Home is a satisfactory place for them even during the first period of rest. These young adults require years of observation for which the family physician is best adapted. Eradication of tuberculosis has now become a possibility by prevention of infection at all ages.

Home surveys are next in the program to be carried out by local general practitioners. Through professional organizations a campaign for family surveys should be started with the family physician as the key man. Decentralization of the antituberculosis campaign should be our goal now.—Edgar Mayer, M.D., New York City; N. Y. State Jour. of Med., Vol. 42, No. 18, September 15, 1942.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early Physicians of Wayne County

R. C. PAUL, M.D.

DR. WILLIAM W. TAGGART was a well known and highly esteemed physician and citizen of Wayne County, born in Belmont County, Aug. 20, 1819.

His grandfather, John Taggart, came to the United States from Ireland and on the breaking out of the Revolutionary War enlisted in the Continental Army, serving to its close. He was a farmer in York County, Pennsylvania, and later in Jefferson County, Ohio, then moved to Belmont County, dying in 1830.

His son, Isaac, born in York County, Pennsylvania, in 1780 came with his parents to Jefferson County about 1797, where he remained on the farm until the breaking out of the War of 1812, when he enlisted in the army and spent one winter in Mansfield, Ohio. After the war he returned to the farm and married Margaret, daughter of William and Margaret McCaughey of Chester County, Pennsylvania. Both her parents came from Ireland in 1770 and her father became a soldier in the Revolutionary War. Mr. McCaughey was a weaver by trade which he carried on until his death in 1836.

John Taggart purchased 400 acres of land in the forests of Belmont County and gave each of his three sons 100 acres. Here they resided until Mr. Taggart died in 1830, but his widow lived on the home place until her death in 1869 at the age of 93.

A brother of our subject, Isaac, was a physician in Belmont County where he died in 1862.

Dr. William W. Taggart was about eleven years old when his father died and being the eldest of the family, the duties of the farm were largely assumed by William. Being of a studious nature and quick in his work he was able to teach country school, beginning in his seventeenth year, and continuing to teach five terms.

The Authors

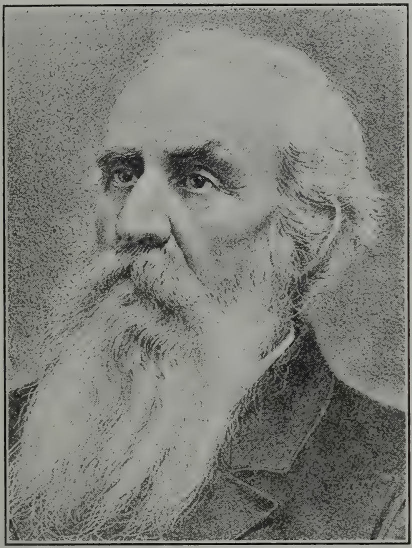
● **Dr. Paul, Wooster, Ohio, is a graduate of Medical Department, University of Wooster, 1892; charter member of Kinney and Knestrick Hospital; member of staff, Wooster City Hospital.**

He attended private schools and Franklin College in summers, then he began the study of medicine the Spring of 1841 in the office of Dr. H. West of St. Clairsville, Ohio, where he remained two years and attended a course of lectures at Willoughby. In the spring of 1843 he began the practice of medicine at Vienna, Harrison County, Ohio, but moved to Smithville, Wayne County, Ohio, the same year.

He took a post graduate course in Cleveland Medical College in 1846-47. He was united in marriage June 1, 1843, with Margaret McCaughey. In 1860 he bought a farm some two miles east of Wooster where he and the family resided eight years, when they moved to Wooster. Mrs. Taggart died on the 23rd day of January, 1884, in her 67th year of age.

Doctor Taggart was one of the leading physicians and surgeons of his day and served as a surgeon with the rank of Major in the One Hundred and Twentieth Ohio Regiment in the Civil War. He was a Republican, and had been a delegate to the State Convention that nominated Salmon P. Chase for Governor. He lived to be more than 80 years of age.

In this connection I believe it will be of interest to learn something of this line of the Taggart family. Doctor and Mrs. Taggart had four children—Clementine, who never married; William Rush, graduated from Wooster College in 1871, from Ann Arbor Law School in 1875. In that year he became assistant solicitor of the Pennsylvania Railroad Company, then went to New York where he gained fame as a corporation lawyer, and there received many honors and was a member of many clubs, and a director of The American Telegraph and Cable Company and many other positions. Experience and ability were essential.



WM. M. TAGGART, M.D.

The next in their family was Frank Taggart, educated in Wooster Public Schools and Wooster College, where he received his A.B. degree in 1874 and his A.M. degree in 1877, and completed his law course in the University of Michigan in 1876. He was an active man in the practice of law and was called upon to fill many offices on the basis of merit and qualifications, such as President of the Board of Education. He was appointed by Governor Asa S. Bushnell, Judge of Common Pleas Court to fill an unexpired term on the death of Judge E. S. Dowell. In 1904 he was elected Judge of the Circuit Court in a district of 14 counties. He was elected to represent Wayne County in the Ohio Constitutional Convention of 1912. He was appointed by Governor Frank Willis in 1915 as superintendent of insurance. In 1917 he was elected general counsel and attorney for the Ohio Farmers Insurance Company of Leroy, Ohio, where he served until failing health necessitated his retirement.

Margaret, the youngest child, married James Greenslade, M.D., who has a grandson in Medical School.

We have gone into this family history so extensively to note the educational trend of the progeny of Doctor William Wirt Taggart, finding there are 44 children and grandchildren, 34 of whom are college graduates and ten younger folk who are in grades or high school.

A granddaughter, Martha F. Taggart, daughter of Judge Taggart, married Marion A. Blankenhorn, an outstanding physician of Cincinnati, who has a daughter in medical school and a son in premedic school.

A grandson, son of Judge Taggart, is a physician. A grandson, son of Margaret and Dr. Greenslade, is in medical school.

There are two grandsons, one, Frank, a farmer on the old home place, and one, David, an attorney at Wooster, Ohio, attorney for The Wayne County National Bank and active at the bar and as a counselor.

We give this as an outstanding, industrious, educated family with 100 per cent college education as they became of that age.

It is rather unusual to know a family which has so many physicians in the relationship and well educated in other lines.

JAMES D. ROBISON

One of the interesting and prominent physicians of our county was James D. Robison, M.D., of Scotch-Irish descent, whose father and five brothers came to this county in 1806.

He was a business man, running a tannery and became interested in politics, being elected Justice of the Peace, County Sheriff, then Representative of the county in the state legislature. In 1816 he married Miss Jemima Dickey in Pennsylvania, who came to Ohio with her husband on horseback. To this couple were born eight children, three of whom died before reaching maturity, leaving four girls and the subject of this sketch.

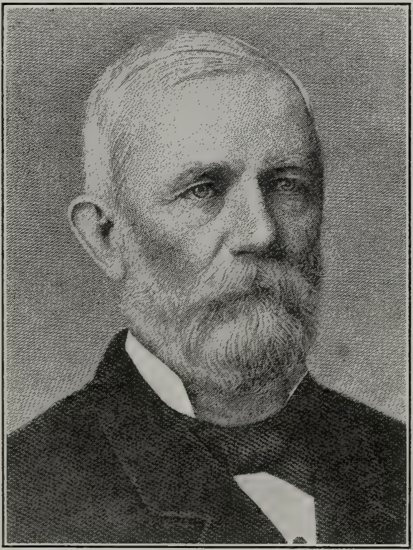
From the age of 14 to 19 Dr. Robison was a store clerk. In 1840, he began the study of medicine with Dr. S. N. Bissell in Wooster and in 1841 entered Jefferson Medical College in Philadelphia and graduated from there in 1843. He then established an office in Cincinnati where he pursued his chosen profession until 1846 when he went to the field in the Mexican War as surgeon of the Third Regiment of Ohio Volunteers, under command of Col. Samuel R. Curtis. He served two years in the service, then returned to Cincinnati and later moved to Wooster. The Doctor married Miss Anna E. Loring of Medina, Ohio, in 1857. To this union three sons were born, Tom, Dick and Harry, one of whom, Harry L., studied medicine in New York City, of whose future career we are unable to secure any history. Mrs. Robison died in 1865.

In the meantime the War of the Rebellion was on and Dr. Robison went into the service as surgeon of the original Sixteenth Ohio Volunteer Infantry, commissioned May 13, 1861. He was promoted to brigade surgeon August 5, 1861, but in March, 1863, on account of the ill health of his wife, resigned and returning to Wooster, was on the 30th of April commissioned surgeon of the Board of Enrollment of the Fourteenth Congressional District of Ohio in which position he continued until the close of the war. In 1868 the doctor married Viola Taylor of Monroeville, Ohio, who died in 1883.

An interesting event in his army life is related in which at Phillips, during an attack, a rebel soldier had gone into a stable to saddle a horse, when a cannon ball crashed through the building and shattered his leg.

Seeing some Union troops approaching the bar, and supposing his life was in jeopardy, he climbed to the loft and concealed himself in the hay awaiting death from loss of blood. He was discovered, however, and Dr. Robison amputated the shattered leg, saving his life. This was the first limb amputated in the war! An interesting fact connected with the incident is that the soldier who lost his leg made an artificial one for himself with so much skill that the Confederates kept him at similar work for others. After the war he established one of the largest artificial limb manufactories in the United States.

Another item of interest to the writer of these sketches is the office we now occupy was built for an office by Dr. Robison and thus has been used as a physician's office for many years. Some years between Dr. Robison's occupancy and Dr. Paul's, the office was occupied as a residence by Dr. Robinson's widow, this being his third wife, Margaret O'Brien, whom he married in the late eighties. Dr. Robison died in 1895, and his widow lived in Wooster until her death in about 1914.

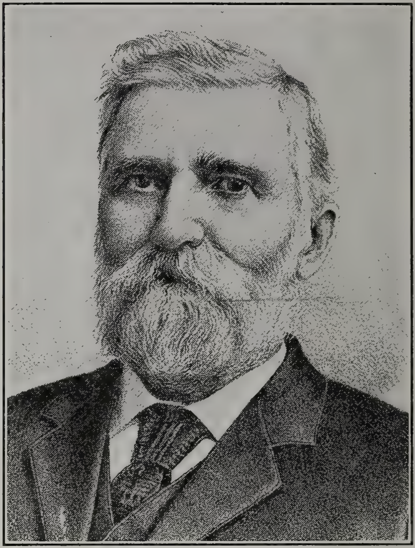


JAMES D. ROBINSON, M.D.

There has been some addition to the office, but the fireplace and mantle and four rooms and hallway are as originally built. It is also significant that Dr. Robison was born on East North Street, one-half block from where the office was built and now stands.

JAMES MARTIN

It is noteworthy to record among the many notable physicians of Wayne County bred and born of Wayne County parentage who have made good in their chosen professions, and here we want to present one such character in the person of James Martin, who was born on the old Martin homestead near Mt. Hope, Oct. 20, 1824, where he was a youthful helper until he was 22 years of age, and where he attended the one room school house during a few months in winter and helped on the farm and improved his general knowledge by using every spare moment in reading books of the home and borrowing from the neighbors.



JAMES MARTIN, M.D.

He also attended select schools in Fredericksburg preparing to teach, following that vocation a few yeears and reading medicine with Dr. T. B. Abbott of Massillon during teaching vacations. He attended a course of lectures by William Bowen in Akron, Ohio, thus preparing himself for entering Jefferson Medical College, Philadelphia, where he graduated, and began active practice of medicine at East Rochester, Columbiana County, in 1850.

In 1854 he returned to his native county and established an office in Fredericksburg, Ohio, continuing to serve his community in a village and country practice until his death at 75 years of age in 1899.

He was an esteemed citizen, an advocate of temperance, member and treasurer of the Presbyterian Church, member of the Health Board and Board of Education, and other civic affairs.

His passing was mourned by the entire community for he had been the health councilor of the children, their parents and grandparents.

Dr. Martin married Miss Elizabeth Craig of Columbiana County, to whom were born seven children, most of whom attended Wooster College.

Dr. Martin was considered one of the educated men of his day as he was a great reader of books, both medical and literary, and was a financial contributor to the Wooster College, where he desired his own and other young people to advance in knowledge.

ISAAC H. HAGUE

Isaac H. Hague was born in Holmes County, Ohio, November 9, 1840. His paternal grandparents were from Holland and settled in Pennsylvania in late 1700.

Dr. Hague's father was born in Fayette County, Pennsylvania, grew to manhood and married Nancy Daugherty of that county, to whom Ruth, Jane, William and Sarah were born. After their settlement in Holmes County, Ohio, there were born Aaron, Elizabeth, Hanna and Isaac H., the subject of this sketch.

Dr. Hague received his early education in his native county and his classical education at Hiram, Portage County, Ohio. He studied medicine with Dr. Joel Pomerene of Millersburg, Ohio, who was the leading surgeon of Holmes and surrounding counties. Dr. Hague graduated in medicine at the Medical Department of Wooster University, Cleveland, Ohio, in 1868 and in 1876 took post graduate work in Bellevue Hospital Medical College, New York.

Isaac H. Hague enlisted in Company G, One Hundred and Second Volunteer Regiment of Infantry, discharged from the army at the close of the war in 1865. While on furlough in 1864 he came home and married Rebecca, daughter of James Williams of Holmes County and upon his return from the service he and Mrs. Hague located in Millersburg where he read medicine as above stated.

After graduation Dr. and Mrs. Hague moved to Nashville, and doctor did a country practice and with him were students of medicine among whom were Dr. Elder, who remained a Nashville physician until he died. When his son had graduated he went into business with his father and later moved to Millersburg, where he has had a suceshful medical career and was Health Commissioner for a number of years. Also E. E. Pennel, M.D., Dr. Hague's student and brother-in-law, who later entered medical practice in Fredericktown and later in Mt. Vernon, where all these years he had more than a local reputation as one of exceptional ability as a keen observer and diagnostic ability. He also entered the field of literary, having written many articles, both scientific and general and an interesting novel, "The Country Doctor".

To Doctor and Mrs. Hague were born five children, Ellis B., Jennie, now deceased, Virga L. (Mrs. Will H. Carl), Estella H. (Mrs. B. S. Pocock, husband deceased) and Harrison Garfield, named after ex-president Garfield.

There is a notable history of son Harrison, who was a member of Company H, Shreve O.V.G., and went with his company to Cuba in the Spanish-American War and was the first soldier from Wayne County to die in Cuba from the dreadful fever that caused such havoc in that short conflict. The doctor had a lucrative business and accumulated quite a little property in dwellings and business rooms in Shreve, where he died from some circulatory disturbance in 1920.

W. T. BARNES

Dr. W. T. Barnes of Fredericksburg was born in 1843 on a 1200 acre farm in Holmes County, Ohio, belonging to his father who came to Ohio in 1820. He was the great, great grandson of Captain John Barnes of New York, who led one of the first groups against the Tories in the Revolutionary War in 1775. This pioneering family went first to Pennsylvania, then descended the Ohio River in flat boats to Cincinnati. The flat boats stopped at Marietta but seldom ventured to land for fear of Indians. At this time, about 1788-90, the woods were literally swarming with Indians who were not finally routed until 1794.

Dr. Barnes served in the Civil War in the 51st Volunteer Infantry, Co. I. After the war, he read medicine under Dr. John Russell of Mt. Vernon, Ohio, and graduated from Western Reserve Medical School in 1869. He married and came to Fredericksburg where he started to practice medicine on horseback—saddlebags full of medicine and other supplies. At his death in 1895, he had 21 horses of pure breed which he had driven in teams, in relays, because of his long drives over bad roads — summer and winter—day and night. His horses would always bring him home when he slept in his buggy, which he did have to do often. Once in a while they would take him on to another very sick patient's house instead of home, if they thought best—then he would always make the call. One winter when the other town doctor was ill, all the sleep he had for six weeks was in his buggy under his big buffalo robe.

Dr. Barnes believed even in those days in preventive medicine. He belonged to the American Medical Association, and at one time was president of the N.E.O.M.A. A natural student, he always found time to read and study his small, but essential medical library and publications; attended the A.M.A. meetings and did some writing on medical subjects. He was one of the first physicians to give tub baths to typhoid patients. He had a large zink tub made which he carried around to his patient's house, where he gave the warm baths himself, which proved so beneficial in fever cases. There were many such cases in the community during those years.

In spite of long hours of work, he was active in community affairs; President of the Board of Education, Superintendeent of Sunday Schools, helping with community activities. In 1893 he moved to Wooster to do consulting work. After one year he became fatally ill and died in 1895 at the age of 51.

HUGH A. HART

A prominent citizen, a specialist in his profession, a soldier and eminent politician was Hugh A. Hart, M.D., the subject now in hand. Dr. Hart was born in Juanita County, Pennsylvania, June 16, 1843. He was of Scotch-Irish descent and noted for his studious and diligent life work, his wit and humor. His father married Miss Prudence A. Robinson in 1838 to whom were born six children.

The doctor as a boy lived and worked on his father's farm and at sixteen entered Academic School of Academia, Pennsylvania. In 1863 he enlisted in the service of his state at the time of the southern invasion. He served the army three months, was discharged honorably and began the study of medicine and graduated at the University of New York in 1867 and also at the Aylette Medical Institute, New York City, the same year, and came to Wayne County, Ohio, where he practiced his profession. In 1875 he went to New York and took a postgraduate course and was appointed as clinical assistant, and later as assistant surgeon in the New York Ophthalmic and Aural Institute where he became efficient in his chosen specialty, "Eye, Ear, Nose and Throat".

Dr. Hart has held many positions where trust and ability count. He has been president and also secretary of the Wayne County Medical Society; member State Medical Association, American Medical Association, Ninth International Congress, and National Association of Military Surgeons. In non-professional positions, president and also secretary Wooster City Board of Education, city councilman and president of the City Council, state senator 69th Ohio General Assembly.

In military service, Corporal Co. K, 34th Regt., P.V.M. 1863; Brig. General and surgeon and Surgeon General O.V.G. 1890 and 1891. He was in the Gettysburg campaign, 1863.

He died in Wooster, Ohio, February 23, 1921. In his later years he made a dignified gentlemanly appearance with his white hair and military bearing. One son was born to Dr. and Mrs. Hart, Wayne, a lawyer of ability now serving on Selective Service Board, Number 2 of Wayne County.

J. H. STOLL

One of the outstanding medical characters in the history of Wayne County was J. H. Stoll, a native of the county, born in Chippewa Township, northeastern one of the county, May 2, 1849. He was the son of Christian and Mrs. Stoll, wealthy and successful farmers of that community, where the subject of our sketch worked with his father on the farm and attended district school until he was 16 when he attended the Smithville Academy and later Savannah College for two years.

At the age of 20 he began the study of medicine with L. L. Firestone, whose portrait appeared in "The Historian's Notebook" of May, 1942. Dr. Stoll began the practice of medicine in Marshallville, Ohio, a village of Wayne County, near his birthplace, and did a general business for 18 months, when he went to England for a postgraduate course in King's College.

On his return he located in Orrville, Ohio, and was appointed surgeon for the Cleveland, Mt. Vernon and Columbus Railroad, which is now the C. A. & C. of the Pennsylvania R. R. system, over which is hauled an immense amount of freight in these days of war preparation and execution. He remained in Orrville six years, then moved to Ashland, Ohio, where he did a general practice of medicine, during part of which time he was a lecturer of Materia Medica at Cleveland in the Medical Department of the University of Wooster and was made Professor of Materia Medica for the years 1883 and 1884. After eight years in Ashland, he moved to Wooster where he entered into a partnership with Dr. George W. Ryall which lasted until his retirement in 1922.

Dr. Stoll had two sons, one studied law, the other, Harry J., studied medicine.

After Harry's graduation from Rush Medical College in 1900, he entered the partnership with his father and Dr. Ryall, as the surgeon of the company, and the three converted a dwelling where the Masonic Temple now stands into the first hospital in Wooster. They later, with Doctors Warren, Mateer and Yocum, established what is now The Wooster Hospital.

After the retirement of the subject of our sketch, Drs. Ryall and Stoll bought the interest of the other physicians and carried on until the death of Dr. Ryall when Dr. Harry Stoll continued as owner and surgeon until 1940, when he sold the hospital to Doctors Robert N. Wright and Ward A. Fritz, both of whom are now in the army—Dr. Fritz in England and Dr. Wright in Miami, Florida. Dr. Harry Stoll, one of the leading surgeons of the times, has spent his winters in Florida, and is now continuing surgery in his former hospital. The hospital is now managed by Dr. Philip C. McDowell, a former medical missionary in Persia, a brother-in-law of Dr. Wright, now in the service and also a former medical missionary in Persia.

Dr. Joseph H. Stoll served a very useful life in his profession in Marshallville, Orrville, Ashland and Wooster and was the second Wooster physician to lecture in Medical College in Cleveland, the other, his preceptor, L. L. Firestone, of whom we wrote in our former "Historian's Note Book".

ARCHIBALD B. CAMPBELL

Of the many physicians who have graced the history of Wayne County we feel none is more worthy the recollection of its citizenry than a man who possessed many qualities of head and heart and we speak of a successful career in "The Healing Art", of one whose broadminded sympathy with the sick and suffering and with an honest, earnest desire to aid his afflicted fellowman going hand in hand with skill and judgment.

We present the distinguished gentleman, Archibald B. Campbell, M.D. His paternal grandfather was James Campbell, a native of Scotland, who came to Canada in 1831, and had five sons and three daughters.

The subject of this sketch was the son of John Campbell, who came to Canada with his father in 1831, locating in Elgin County, Ontario, a dense wilderness. The family cleared the forest and became one of the most successful farmers in their county.

Dr. Campbell (born in 1845) remained on the farm and received his early education in the neighborhood school. Later he taught school for five years, and in 1869 and 1870 attended The University of Michigan at Ann Arbor and graduated in 1871 with the Doctor of Medicine degree.

He practiced his profession at Western Star, Summit County, two years. Then he moved to Canal Fulton, Stark County, and continued his professional career there until 1901 when he came to Orrville, Wayne County. He did a general practice in medicine and surgery.

In 1876 Dr. Campbell married Amelia Upjohn, the daughter of Dr. Uriah Upjohn of Kalamazoo, Michigan. She died one and a half years after their marriage, leaving a son, Archibald Upjohn Campbell, who became a member of the Upjohn Pharmaceutical Company of Kalamazoo of which he was a stockholder.

In 1883 he married Etta McMillen, a daughter of John McMillen of Stark County, and a sister of Dr. McMillen of Orrville.

He was a member of the Board of Education in Canal Fulton 18 years. In Orrville was a member of The Wayne County Medical Society, The Sixth Councilor District Medical Association, Ohio State Medical Association and The American Medical Association. He was a member of the Methodist Church, the Free and Accepted Masons, and a Republican in politics, and was war pension examiner for eight years. He was surgeon of the P. Ft. W. and Chicago Railroad, and The Cleveland, Akron and Columbus Railroad.

Twenty-two descendants of the Scotch farmer who first settled in the wilds of the western world have been successful professional men, twenty of them physicians, one a lawyer and one a dentist. Fauquhar Campbell, an uncle of the subject, had nine sons, and of these, seven became physicians and one a lawyer. Of the several hundred relatives of Dr. Campbell many, many became professional men and women or agriculturists of known ability, to such a degree that it has made history. Dr. Campbell died June 2, 1921.

In 1859 the graduating of a woman by the Starling Medical College was furiously reprehended in the *Lancet and Observer* of Cincinnati. "Why not grant to the degree to sucking babes?" it demanded. "There never was a woman fitted to practice medicine, surgery and obstetrics, no matter how long she may have studied. The duties of the profession are contrary to her moral, intellectual and physical nature." Then referring to the fact that the Eclectic Medical Institution had refused admission to women, it asks: "Is it then left for a respectable school to so far insult all gentlemen in the profession as to admit to the temple of *Escuplapius* those who have no right in it?"—Wiler. P. 571.

Members of the State Association who have any material dealing with the history of Medicine in Ohio, especially official proceedings of The Ohio State Medical Society prior to 1870, are requested to communicate with Jonathan Forman, chairman of the Committee on Medical History and Archives of the Ohio State Archaeological and Historical Society, 1005 Hartman Theater Building, Columbus, Ohio.

Conservation of Hearing on a State-Wide Basis

C. E. KINNEY, M.D., Cleveland

Editor's Note: The accompanying article was written by Dr. Kinney at the request of The Journal. The purpose of the article is to stimulate thinking on the part of the physicians of Ohio as to the need for a well-organized conservation-of-hearing program in this state under the direction of the medical profession. Dr. Kinney, a recognized authority in this field, presents some valuable advice and recommendations as to how such a program might be organized and what can be accomplished should a constructive program of this character be initiated. His recommendations will be presented to The Council of the Ohio State Medical Association for consideration and it is hoped that his suggestions will receive the consideraton of all physicians in the state, as individuals and collectively through their respective county medical society.

ON first thought, one might consider a discussion of conserving the nation's hearing at a time when we are thinking of all-out total war as a rather trite matter. However, I believe that our colleagues serving in the armed forces would not have those of us who are staying at home continue in the same old paths and not attempt to progress in medicine.

Those public individuals charged with the duty of mobilizing the manpower of this country continually stress the necessity of maintaining maximum public health. The detection and correcting of hearing problems, particularly in school children, is certainly conserving the eventual manpower of this country. During the past 18 months in one of the nation's largest induction centers for selectees, of the rejections made by the nose, ear, and throat specialists, permanent perforations of the eardrum top the list.

Therefore, I am offering the following proposal for a state-wide hearing detection program in our public school system. Believing that this is a problem of organized medicine as well as a problem of the governmental authorities, I have chosen to set up recommendations along those lines.

PLAN OF ORGANIZATION DISCUSSED

There should be a small subcommitte of one of the existing committees of the Ohio State Medical Association, whose duty it is to act in an advisory capacity to local committees throughout the state. In other words, this state committee should establish certain fundamental principles by which district committees might be guided. The Ohio State Medical Association is divided into 11 districts. Each district is presided over by a councilor. A workable district committee of three would be satisfactory and as a suggestion the councilor should appoint an interested otologist in that respective district, one of the outstanding public health officials in that district, and an outstanding educator in that district.

DUTIES ARE OUTLINED

The duties of the district committees would be as follows:

1. A survey of the district and determination of the school districts within this organized medical district that have a hearing detection program.

2. A determination as to whether the hearing surveys that are being conducted in that district meet with the general requirements laid down by the state committee. If so, these facts should then be forwarded to the state committee. If not, the school district that is conducting hearing surveys should be shown or rather advised as to how they might meet the general requirements.

3. A campaign urging the school districts not having hearing detection programs to institute one and the organization and management of such a program.

By making the state committee a subcommittee of an existing Public Health Committee of the State Medical Association, the organization of the State Society would not be cluttered up with new committees and by making the district committees appointed by the councilors report directly to the state committee there would be a direct channel of communication.

PROGRAM OF ACTION OUTLINED

Now as to some of the general requirements that such a state committee might recommend. This entire program consists of three main parts, namely, (1) the early detection of hearing im-

The Author

● Dr. Kinney is a graduate of the Western Reserve University School of Medicine, 1927; diplomate, American Board of Otolaryngology; fellow, American Academy of Ophthalmology and Otolaryngology and American College of Surgeons; otologist, Cleveland Public Schools; and director of hearing program of the Cleveland Schools; member, Board of Directors and Consulting Otologist, Garfield House, Cleveland (Cleveland Chapter, American Society of the Hard of Hearing.)

pairments in the school child; (2) the recommendation to the parents of the affected child that the child has such a hearing impairment and advice as to whom the child might be taken for further examination and treatment; (3) and this point is probably the most important, a follow-up system to check whether the child has been given the advantage of a medical examination and treatment.

There are two acceptable methods of conducting a satisfactory Hearing Detection program. The first, and older method, is by the use of a group, or phonograph, audiometer. I would like to briefly describe the group audiometer and the methods of its use. It consists of a phonograph to which has been added telephonic apparatus so that the sounds produced can be transmitted simultaneously to the ears of as many as 40 persons. The children hear several series of two digit numbers and each one writes the numbers heard on a sheet in the proper place. As each series progresses, the numbers become more faint until they are barely audible to the normal ear. The operator grades the papers according to a master or key sheet.

In grading a test sheet, the first level going downwards at which all of the four numbers are wrong is taken as the decibel loss for that ear. After grading the test papers, all children showing a hearing loss of nine or more decibels in one or both ears should be retested. If, after being retested, the child still shows a similar hearing loss in that ear he is considered to have a hearing impairment in that ear.

SECOND METHOD DESCRIBED

The other method, and newer as far as the development of this problem is concerned, is the so-called sweep check with a pure tone audiometer. The pure tone audiometer is a machine which emits essentially pure tones similar to those that are given off by a tuning fork in different frequencies usually on the C scale from 128 to 8192 vibrations. One of the newer types of these audiometers is made so that the intensity level can be kept constant. Children are lined up, after having been given a preliminary instruction as to what is expected of them, one at a time admitted to a relatively quiet schoolroom, seated in front of the audiometer and the person making the test in order that the child's face can be seen at all times. They are told to hold the earpiece to one ear and signify if they do not hear the different tones. The usual setting for an average schoolroom is at 15 decibels. The operator then quickly turns the frequency dial to the eight octaves mentioned and notes whether the child seems to hear or does not hear. The earpiece is then put on the other ear and, as the case may be, the procedure is repeated going down the scale or up depending upon which way it was ended on the opposite ear. If the child satisfies the conductor of the test that he hears throughout this range he is considered to have normal hearing and the conductor goes to the next child.

ADVANTAGES ARE COMPARED

The first described method, the group or phonograph testing, has the following advantage over the second method: First, it is faster. In our experience, approximately two to two and one-half times the number of children can be tested by the same personnel in the same time by the phonograph method.

The second method, or pure tone testing, has the following advantages: It is an individual test and eliminates the necessity of rechecking those children who do not do well in any group endeavor because of the attention factor. It also eliminates the child with a low I.Q. who has normal hearing but who cannot write the figures down as rapidly as he hears them. There are some children with a hearing impairment in the higher frequencies, which hearing impairment should be investigated, but who hear a spoken voice normally and have a normal grade on the phonograph test. The numbers of these cases however are very, very small.

PROPER EXAMINATIONS

The next step of the detection program blends over into No. 2 of the three main points. The child with an apparent hearing loss as detected by either one or the other of the screening methods then should have a complete nose, ear, and throat examination by a nose, ear, and throat specialist. This second examination should be made in the presence of one or the other of the parents of the child. In my experience, the arrangements for this examination with a parent present is not very difficult and practically every parent is willing to cooperate. This examination should consist of three parts and they are listed in the order of their importance as far as I am concerned:

A. History. An accurate history as to any familial tendencies toward hearing impairment or the inception of an actively discharging ear as related to serious constitutional diseases and the age at which such diseases were conceived.

B. Examination. An accurate examination of the nose, ears, throat, and nasopharynx.

C. A pure tone audiometer examination. Also an estimation by any one of several methods of the child's ability to understand spoken voice.

All of the items in A, B, and C should be incorporated in a record containing the child's name, age, address, and school.

REMEDIAL MEASURES

At this point, items No. 1 and No. 2 in the original outline are blended together. This is the time to make the recommendation directly to the parents of the child as to what should be done. How the remedial measures shall be carried out should, of course, be left to the physician to whom the child is referred. It is at this time that the presence of a hearing defect in one or both ears can be definitely implanted in the minds of both the child and the parents. To the skeptical parent it is quite necessary at times to bring in a normal hearing child and repeat the examination in their presence pointing out how their child does not hear as well as the normal hearing child. At this point it is also desirable to inquire as to what is going to be done about the situation. The parents should be asked whether they have a family physician to which they wish the matter referred. In many instances these cases are in indigent families and the patient should be referred directly to a hospital dispensary or a County Clinic. In many instances the cause of impairment is a subacute chronic otitis media and the necessity for instituting measures directed towards the drying up of the infection should be impressed upon the parents. Also, the parents should be advised that if the methods pursued do not bring results further and more accurate treatment should be instituted.

FOLLOW-UP OF CASES

The third, and most important, step is the follow-up of these cases. If, in the opinion of the otologist, the disease causing the impairment is one of a remedial nature a system of marking the child's record should be instituted whereby the nurse or other person designated in keeping such records can go through the records at intervals of three to six month and pull out those cards so marked; then have these children reexamined to see if the suggested remedial measures have been followed through.

The rehabilitation and education of children with impairments which are not subject to correction is of necessity an educational problem. But it is closely associated with the detection program and the otologists in the respective medical districts should familiarize themselves with the educational problem.

CLEVELAND'S PROGRAM

What can be accomplished through an organized program in connection with the public schools is revealed by results which have been obtained in Cleveland. Five years ago the writer took charge of the hearing program in the Cleveland Public Schools. At that time one of the most outstanding observations was the great number of chronically discharging ears in the school children. The first year we discovered approximately 350 cases. Our records show that in the past school year there were less than 60 children in the Cleveland Public Schools with discharging ears. This was brought about by the follow-up system which was instituted. The first two years was directed entirely toward this part of the problem. The figures speak for themselves.

Another development which was given major consideration was that of the educational problem involving those children whose handicap was beyond remedial help. We roughly had two types of children: (1) The child who was so handicapped that he had to be educated in a special school (Alexander Graham Bell School) and (2) the child who had only a moderate loss of hearing. The greater number belonged to the second class. Formerly the latter group was simply handled by six lip reading teachers who went to the various schools on certain days. They could not give one child any more than two hours work per week. There were about 125 children whose hearing was approximately 50 per cent or less and this amount of work was insufficient to keep them with their class. We instituted a grouping system which we call 1, 2, 3, and 4 in order to get away from the use of deaf and hard of hearing. Children were grouped in accordance with the degree of impairment. We then located the six roving lip reading teachers in three geographically located centers. The children placed in groups 2 and 3 were transferred to one of these centers and handled by these teachers five days a week—all day long. Some of the more severe cases are still in these centers. Some of the milder cases have already been transferred back to their regular school. Those children in group 4 are the slight cases who need lip reading mainly as a prophylaxis against possible further reduction in hearing. They are taught lip reading on Saturdays and some evenings through the cooperation of Garfield House. This change in education set-up has been quite a benefit and is starting to be copied by several other boards of education in other large cities.

CONCLUSIONS

In conclusion, until the State of Ohio adopts this or similar state wide measures for the detection of hearing impairments in school children of our state we will fall behind some of our sister states. In addition, we will not be doing the job that is asked of us by those in charge of our mobilization of available manpower for an all-out war effort and we will not be doing as much as we should to further the progress of medicine while this war is going on.

There is 80 times as much tuberculosis found in discharged sanatorium patients as in the unselected population, it is estimated, and 30 times more tuberculosis in the contact group than the general population.—L. A. Morse, M.D., Wis. Med. Jour., Mar., 1941.

Recruiting Board Withdrawn; Applications May Be Filed At Fort Hayes; Problems of Re-allocation Studied

THe Medical Officers Recruiting Board was withdrawn from Ohio on October 9 by order of the commanding general, Fifth Service Command, Fort Hayes, at the request of the Procurement and Assignment Service for Physicians, War Man Power Commission, bringing to an end in Ohio for the balance of 1942 the medical officer recruiting program which started on May 1.

As of October 16 when this issue of *The Journal* went to press, 2,142 Ohio physicians had given up civilian practice to enter the armed forces, 1,955 being commissioned officers of the Army Medical Corps and 187 of the Navy Medical Corps.

Applications of several hundred additional Ohio physicians, according to the records of the Ohio Procurement and Assignment Committee, are pending in Washington for consideration. It is anticipated that many of these physicians will be commissioned at an early date. Moreover, it is anticipated that several hundred others who have been classified as available for military service will take definite steps toward obtaining a commission between now and the end of the year which will bring Ohio's medical roll of honor to approximately 2,500 by December 31.

Facilities have been established at the office of Colonel E. C. Jones, M.C., Fifth Service Command Surgeon, Ft. Hayes, Columbus, to accept the applications of physicians desiring to enter the Army Medical Corps; provide them with proper information, and a physical examination. All future applications will be forwarded to the Office of the Surgeon General, Washington, for consideration and evaluation, there being no provision now for the commission of medical officers except through the regular channels centering in Washington.

No one can state now how many additional medical officers Ohio will be expected to furnish in 1943. Recent newspaper articles have quoted General Hershey, director of the Selective Service System, to the effect that approximately 400,000 men would be added to the army each month starting with the November call and Secretary of War Stimson is quoted as having informed Congress that the army would total 7,500,000 men by the end of 1943.

As the sizes of the Army and Navy are increased, additional demands for medical officers will be made and Ohio will be called upon to supply its share of physicians for the new divisions, air squadrons and naval units, which will be formed.

REAPPRAISAL BEING MADE

In order to be prepared to meet the request for additional medical officers which will be made in the near future, the Ohio Procurement and Assignment Committee is re-appraising the medical personnel of the state to determine where additional physicians can be spared. The committee believes that Ohio will be able to supply enough medical officers to meet any demand of the immediate future from among those physicians who are 45 years of age or under. No call for volunteers from among the group above 45 years of age will be issued by the committee until the supply of available physicians under 45 years of age is exhausted.

"As we have stated on several previous occasions," Dr. Robert Conard, Wilmington, chairman of the Procurement and Assignment Committee, informed *The Journal,* "practically every Ohio physician 45 years of age or under is a potential medical officer. There is every reason to believe that with few exceptions during the next six to nine months all Ohio physicians of military age who can meet the physical requirements will be in uniform. This will require many re-adjustments on the part of these men and on the part of many communities, but there is no alternative but to see this war through to a victorious conclusion. More than 2,000 Ohio doctors already have made the sacrifices which the nation has asked of them and we are of the opinion that there will be a patriotic response on the part of hundreds of additional physicians when the call for more medical officers is issued. Those who have been declared available and who have taken no action, should file an application for a commission at once. As additional physicians are notified that they are available based on the re-appraisal which the committee is making, they should take similar action. America is in this war to the bitter end. Circumstances and obligations of a personal nature on the part of physicians needed by the armed forces must be subordinated to the war effort. The public at large will likewise have to adjust to war conditions."

Dr. Conard pointed out, however, that the Ohio Procurement and Assignment Committee would continue to meet its responsibility of seeing to it that no serious shortage of medical personnel develops in any area of the state; also that sufficient physicians are retained at home to meet the medical needs of industry and institutions.

"We will have an adequate number of physicians to meet civilian and other needs even if many more Ohio doctors enter the service, but we will have to concentrate on voluntary efforts to bring about a little better distribution of our medical manpower. This is a responsibility of the medical profession, the State Medical Association and all county medical societies. One committee cannot do the job. But it can be done without compulsion, we believe, providing physicians as individuals and all medical societies will pull together."

Dr. Conard revealed that the committee is making a survey through county medical societies of all areas for the purpose of finding out where additional physicians may be needed for civilian or industrial practices. Also, he stated that the committee is making a poll of physicians who have been physically disqualified for military service and those who have indicated on their Procurement and Assignment questionnaire that they would be willing to consider civilian or industrial practices in an area other than their home community.

"After we have found out where needs exist and after we have a list of men who are willing to help out in critical areas for the duration, we will be in a position to request these volunteers to dislocate themselves for the duration," Dr. Conard said. "However, I desire to emphasize that the committee will work closely with the local medical societies on this matter and will consult the medical society on the various steps which will be necessary."

Chairman Conard pointed out that the committee, in cooperation with local medical societies, has been successful in placing physicians in several areas where a need existed and that efforts are being made now to supply a number of war industries with additional medical personnel. He urged physicians who are willing to aid in this work of the committee to get in touch with the committee immediately.

NO REASON FOR ALARM

The Ohio Procurement and Assignment Committee is of the opinion that the public should not become alarmed or panicky about the medical and health situation in this state. The committee points out that exaggerated and alarming statements which have been made during recent weeks by some government officials and published in the daily press, have given the public a false impression of the actual situation in Ohio.

This attitude of the committee is supported in a recent Associated Press dispatch from Washington, based on interviews with government officials, reading in part as follows:

"Ohio is a bright spot on the nation's health map.

"Government officials surveying medical needs in wartime said the situation in the state was good despite increased population and the entry of doctors into the fighting services.

"They added that there was little to worry about unless there was an unexpected call for great numbers of doctors and dentists in the Army and the Navy. There have been only a few isolated complaints by communities where doctors have joined up.

"Some Ohio communities have an over-supply of doctors who can be shifted to any towns threatened with a shortage.

"There are, however, no really bad spots in the state, said an official who asked that his name not be used. He explained that the only current problem was one of proper distribution and there are enough doctors for this.

"The War Manpower commission and the United States public health service estimated that more than 300 communities needed additional medical services but officials insisted that none of the problem centers was in Ohio.

" 'There have been one or two protests in Ohio communities where doctors left to serve with the military forces, but this situation can be met easily by proper shifting of doctors from other places with more than ample medical services,' one official commented."

In conjunction with the Bureau of Public Education of the Ohio State Medical Association, the committee prepared a release to all Ohio newspapers, listing ways the public can cooperate with the medical profession in conserv-

LET'S SEE TO IT THAT THIS DOES NOT HAPPEN IN OHIO!

"Public-health authorities are worrying over an unexpected headache brought on by wholesale induction of doctors by the armed forces. Naturally, the young and single men were taken first. These, because their practices were still to be built up, usually kept their fees low to cater to the less affluent. Recent surveys show that those now left behind to care for civilians are generally long-established older men or specialists, both of whom receive higher fees. Consequently, the poorer classes, deprived of cheap medical advice and unable to pay the higher fees of the older doctors, have been forced to turn to the already overburdened public-health services," or do without medical care.

—*Newsweek, Oct. 12.*

ing the time of physicians and in keeping well, so fewer people will be disengaged from vital war industry and the time of physicians can be utilized in taking care of those with serious illnesses.

NATIONAL POLICY ADOPTED

As soon as it became evident that the Selective Service Act would be amended to permit the drafting of youths of 18 and 19 years, the committee considered the problem of the pre-medical student. Communications were sent to the Procurement and Assignment Service, Washington, and the American Medical Association asking that this question be given prompt attention and that some practical method be worked out to prevent dangerous curtailment of the flow of students into medical schools. Recent press dispatches intimated that some plan for deferment of pre-medical students would be adopted if the age of those subject to the Selective Service Act is lowered.

In a recent announcement regarding the responsibility of the Procurement and Assignment Service for meeting needs for medical care in certain communities, Paul V. McNutt, chairman of the War Manpower Commission, stated his approval of a statement of policy adopted by the directing board of the Procurement and Assignment Service in which the Procurement and Assignment Service accepts the responsibility of ascertaining the needs of the civilian population for medical service and providing the medical personnel to meet them.

The principles set forth in this policy statement, Mr. McNutt said, were developed in cooperation with the federal officials concerned and have the approval of the Surgeon General of the United States Public Health Service. The statement has been approved by the boards of trustees of the American Medical Association, the American Dental Association and the war service committees of the two associations, and the executive committee representing the State and Territorial Health Officers Association.

Following are the principles recommended by the directing board of the Procurement and Assignment Service for meeting the emergency needs:

1. That it is a responsibility of the Procurement and Assignment Service to ascertain the needs of the civilian population—nonmilitary—for medical service.

2. That it is the responsibility of the Procurement and Assignment Service to aid in providing the medical personnel to meet these needs.

3. That, as now constituted, the Procurement and Assignment Service is not in a position to deal with the financial and administrative problems involved in the provision of medical care.

4. That as far as possible these problems should be met at the state level in view of the many different types of problems and needs and the relation of these and their solution to local situations.

5. That a survey of these needs should be made by the existing committees of the Procurement and Assignment Service with the aid of such technical assistance as may be necessary. It is especially desirable that in determining these needs the state procurement and assignment committee seek the cooperation of the state health department, of the state medical society and of the state dental society, of industry, of organized labor and of other agencies, such as the state defense council, which should be able to make significant contributions to the solution of this problem.

6. That whenever possible the civilian needs as determined by these committees should be met through local arrangements, resources and agencies. In case assistance is needed for the organization, administration or financing of necessary medical or dental services in these areas, the responsibility should devolve on an agency which should include representatives of the state health department, the state medical society and the state dental society, with the cooperation and support—financial and technical—of the appropriate federal agencies, the administration of funds being delegated to the appropriate state agency.

7. That, since these problems have been occasioned by the war and in many instances transcend state lines, the federal government has a definite responsibility to cooperate with the states in meeting these needs by the provision, when necessary, of financial and technical assistance.

8. That the needs for medical care in certain areas are so acute and the pressure from various sources so great that it is imperative to have prompt action for implementation of this program. It appears to the directing board that the responsibility for the initiation of such action rests with the War Manpower Commission.

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of Ohio physicians commissioned in the Medical Corps of the Army or Navy since the October issue of *The Journal* went to press on September 23 and up to October 16. Most of them are on active duty; others are awaiting orders and assignment. Readers are urged to inform *The Journal* as to errors, if any, in this list and to send in the names of commissioned medical officers not included.

Name	City	Rank
Amato, N. G.	Cincinnati	1st Lt., U.S.A.
Banning, Wm. V.	Mt. Vernon	1st Lt., U.S.A.
Baumgartner, Myron R.	Bolivar	1st Lt., U.S.A.
Beanstock, Sam	Chillicothe	1st Lt., U.S.A.
Beck, Claude S.	Cleveland	Lt. Col. U.S.A.
Berman, Alvin L.	Cleveland	1st Lt., U.S.A.
Black, Albert V.	Dayton	1st Lt., U.S.A.
Bliss, Theo. L.	Akron	Major U.S.A.
Bowman, Earl B.	Cincinnati	1st Lt., U.S.A.
Brewer, Russell M.	Lebanon	1st Lt., U.S.A.
Brickman, Edw. M.	Cleveland	Capt., U.S.A.
Burkhardt, S. L.	Steubenville	Lt., U.S.N.
Carnes, Jas. A.	Massillon	1st Lt., U.S.A.
Clark, Clyde E.	Dayton	1st Lt., U.S.A.
Clark, John J.	Mansfield	1st Lt., U.S.A.
Cragg, Nelson R.	Cincinnati	Capt., U.S.A.
DeNardi, Jos. M.	Lorain	Capt., U.S.A.
Diller, W. E.	Rawson	1st Lt., U.S.A.
Dorner, Arthur F.	Akron	Major, U.S.A.
Dowell, Lloyd, L.	Navarre	1st Lt., U.S.A.
Eckert, Jos. J.	Akron	1st Lt., U.S.A.
Effler, Don S.	Toledo	1st Lt., U.S.A.
Evans, W. H.	Youngstown	Lt. Comdr., U.S.N.

Name	City	Rank
Ferreri, Eugene H.	University Hgts	1st Lt., U.S.A.
Fischer, Frank J.	Cleveland	Capt., U.S.A.
Fishman, David	Cleveland	1st Lt., U.S.A.
Frankman, Raymond W.	Massillon	Capt., U.S.A.
Friedman, Edward	Cincinnati	Lt. Comdr., U.S.N.
Gallagher, John F.	Steubenville	Lt., U.S.N.
Gault, Ross M.	Portsmouth	Capt., U.S.A.
Geller, Joseph	Lakewood	1st Lt.,U.S.A.
George, Eli	Cleveland Heights	Capt., U.S.A.
Gerdsen, Harvey G.	Cincinnati	Capt., U.S.A.
Gillette, Robert S.	Toledo	Lt. Comdr., U.S.N.
Gillig, Frederick Wm.	Mansfield	Capt., U.S.A.
Goldhamer, Morton L.	Cleveland Heights	Capt., U.S.A.
Good, Chas. F.	Cleveland	Major, U.S.A.
Gray, James	Cleveland	Lt. Comdr., U.S.N.
Greenamyer, D. L.	Alliance	1st Lt., U.S.A.
von Haam, Emmerich	Columbus	Major, U.S.A.
Haire, W. T.	Cleveland	Capt., U.S.A.
Harris, E. W.	Columbus	Major, U.S.A.
Harrold, A. W.	Tiffin	1st Lt., U.S.A.
Hegley, Wm. H.	Toledo	1st Lt., U.S.A.
Heller, Glenn H.	Akron	Capt., U.S.A.
Hendricks, John E.	Newark	Capt., U.S.A.
Hoerner, J. K.	Dayton	Major, U.S.A.
Hoffman, Edward O.	Cincinnati	1st Lt., U.S.A.
Hurless, L. B.	Dayton	Lt. Comdr., U.S.N.
James, Frederick W.	Lancaster	Capt., U.S.A.
Katz, Louis B.	Dayton	1st Lt., U.S.A.
Kerns, Henri A.	Kenton	1st Lt., U.S.A.
Leech, Chas. H.	Lima	Capt., U.S.A.
Liebschner, Wm. R.	Deshler	1st Lt., U.S.A.
Lowenthal, Gerson	Cincinnati	Capt., U.S.A.
Machle, Willard F.	Cincinnati	Lt. Col., U.S.A.
Markey, O. B.	Cleveland	Major, U.S.A.
Marks, M. I.	Cleveland	Capt., U.S.A.
Matthews, Charles	New Vienna	1st Lt., U.S.A.
Mattocks, Theodore R.	Marietta	1st Lt., U.S.A.
McBride, Jas. M.	Lima	Capt., U.S.A.
McCarthy, J. E.	Cincinnati	Major, U.S.A.
McCormish, Cletus T.	Cuyahoga Falls	Capt., U.S.A.
McMath, J. S.	Cincinnati	Lt. Comdr., U.S.N.
McNamee, Regis J.	Cleveland	Capt., U.S.A.
Melaragno, U. A.	Dayton	Capt., U.S.A.
Meltzer, S. L.	Portsmouth	Capt., U.S.A.
Michaels, Samuel J.	Akron	Capt., U.S.A.
Minor, Howard H.	Steubenville	Capt., U.S.A.
Nash, Harry C.	University Hts	Capt., U.S.A.
Nealon, James K.	Newark	Major, U.S.A.
Novatney, R. C.	Elyria	Lt., U.S.N.
Parker, Watson D.	Sandusky	Lt. (j.g.) U.S.N.
Peirce, Wilmot W.	Mansfield	Capt., U.S.A.
Plass, Herbert F. R.	Cleveland	1st Lt., U.S.A.
Plymale, John L.	Marion	Capt., U.S.A.
Preston, Wm.	Toledo	1st Lt., U.S.A.
Price, Frederick F.	Stony Ridge	1st Lt., U.S.A.
Printz, D. R.	Ada	Lt., U.S.N.
Radecki, Casimer B.	Cleveland	Capt., U.S.A.
Ralston, J. F.	East Cleveland	Lt. Comdr. U.S.N.
Riddle, M. M.	Fremont	Lt. Comdr., U.S.N.
Ried, Albert H.	Cleveland Hgts	Capt., U.S.A.
Rilling, Walter A.	Dayton	1st Lt., U.S.A.
Rowland, Guy A.	Cleveland	Lt. Comdr., U.S.N.
Robishaw, Arthur W.	Elyria	Lt. Comdr., U.S.N.
Russell, Henry N.	Cincinnati	1st Lt., U.S.A.
Safdi, Stuart A.	Cincinnati	1st Lt., U.S.A.
Salter, H. W.	Cleveland	Lt. Comdr., U.S.N.
Scherger, Frank E.	Delphos	1st Lt., U.S.A.
Schneider, Harold O.	Cleveland	Lt., U.S.N.
Schonberger, Stanley H.	Cleveland	1st Lt., U.S.A.
Seidemann, Hans	Cleveland	Capt., U.S.A.
Sharp, H. V.	Akron	Lt. Comdr., U.S.N.
Shilling, Raymond L.	Ashland	Capt., U.S.A.
Singer, M. K.	Akron	1st Lt., U.S.A.
Skimming, Louis H.	Middletown	Capt., U.S.A.
Slasor, Wm. J.	Toledo	Capt., U.S.A.
Slater, R. L.	Canton	Lt. Comdr., U.S.N.
Slomer, N. F.	Cincinnati	Capt., U.S.A.
Smith, Paul E.	Canton	1st Lt., U.S.A.
Smith, Trent W.	Cincinnati	1st Lt., U.S.A.
Steiner, David L.	Lima	Capt., U.S.A.
Steuer, Leonard G.	Cleveland	Major, U.S.A.
Stiles, H. T.	Mansfield	Capt., U.S.A.
Strong, J. M.	Cleveland	1st Lt., U.S.A.
Svoboda, Jos. E.	Cleveland	Capt., U.S.A.
Tapke, Robert J.	Cincinnati	Capt., U.S.A.
Tecklenberg, Roger L.	Lima	1st Lt., U.S.A.
Thomas, M. P.	Cleveland	Lt., U.S.N.
Topinka, John A.	University Heights	Capt., U.S.A.
Torrance, John F.	Germantown	Capt., U.S.A.
Turton, L. E.	Worthington	Capt., U.S.A.
Uhl, Judd W.	Cincinnati	1st Lt., U.S.A.
Ulevitch, S. H.	Cleveland	1st Lt., U.S.A.
Wayman, T. Brent	Cincinnati	Capt., U.S.A.
Weems, P. D.	Portsmouth	Capt., U.S.A.
Weinberg, H. C.	Cleveland	1st Lt., U.S.A.
Weller, L. W.	Youngstown	Capt., U.S.A.
Wolf, Carl J.	Fremont	Capt., U.S.A.
Woodworth, Philip J.	Athens	1st Lt., U.S.A.
Zodikoff, Rudolph M.	Mariemont	Capt., U.S.A.

WIN PROMOTIONS

The following Ohio physicians have been promoted to the rank indicated, since the October issue of *The Journal* went to press:

Name	City	Rank
Allenbach, Theodore C.	Columbus	Major, U.S.A.
Brown, John E.	Columbus	Major, U.S.A.
DeOreo, Gerard A.	Cleveland	Capt., U.S.A.
Dorroh, Glenn U.	Cincinnati	Lt. Col., U.S.A.
Duncan, Chas. H.	Cincinnati	Lt., U.S.N.
Friedman, Leo S.	Cincinnati	Major, U.S.A.
Guilford, F. R.	Columbus	Capt., U.S.A.
Hoover, R. B.	Columbus	Major, U.S.A.
Hullinger, Clarence Wm.	Springfield	Lt. Col., U.S.A.
Humphries, John K.	Bellecenter	Capt., U.S.A.
Karlan, A. Morton	Springfield	Capt., U.S.A.
Lacock, W. B.	Logan	Lt. Col., U.S.A.
Lovebury, Wm. F.	Columbus	Major, U.S.A.
Matteo, Michael L.	Cleveland	Capt., U.S.A.
McCoy, S. D.	Columbus	Lt. Col., U.S.A.
Mendelsohn, H. J.	Cleveland	Capt., U.S.A.
Northrup, C. E.	McConnelsville	Major, U.S.A.
Pliskin, Reuben R.	Akron	Major, U.S.A.
Smith, Kenneth D.	Columbus	Major, U.S.A.
Thompson, R. H.	Cleveland	Lt. Col., U.S.A.
Welch, Brent A.	Sidney	Major, U.S.A.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 2142 Ohio physicians in the armed forces as of October 16 by counties. This list is unofficial. If there are errors in the tabulations *The Journal* would appreciate receiving corrections:

Adams	2	Guernsey	5	Muskingum	7
Allen	29	Hamilton	264	Noble	1
Ashland	10	Hancock	12	Ottawa	8
Ashtabula	16	Hardin	7	Paulding	2
Athens	11	Harrison	4	Perry	4
Auglaize	5	Henry	2	Pickaway	3
Belmont	8	Highland	6	Pike	1
Brown	4	Hocking	3	Portage	2
Butler	23	Holmes	2	Preble	7
Carroll	1	Huron	12	Putnam	5
Champaign	8	Jackson	1	Richland	39
Clark	27	Jefferson	25	Ross	15
Clermont	7	Knox	12	Sandusky	11
Clinton	5	Lake	15	Scioto	14
Columbiana	8	Lawrence	7	Seneca	9
Coshocton	3	Licking	17	Shelby	7
Crawford	7	Logan	7	Stark	78
Cuyahoga	522	Lorain	29	Summit	116
Darke	6	Lucas	128	Trumbull	26
Defiance	3	Madison	6	Tuscarawas	16
Delaware	5	Mahoning	82	Union	1
Erie	10	Marion	14	Van Wert	9
Fairfield	6	Medina	8	Vinton	2
Fayette	2	Meigs	1	Warren	3
Franklin	188	Mercer	5	Washington	6
Fulton	5	Miami	9	Wayne	9
Gallia	6	Monroe	2	Williams	6
Geauga	3	Montgomery	98	Wood	11
Greene	8	Morgan	1	Wyandot	2

Total....................2142

Clinical Congress Cancelled

The annual Clinical Congress of the American College of Surgeons which was scheduled to be held in Cleveland, November 17-20, 1942, has been cancelled by the Board of Regents of the College because of transportation and other difficulties resulting from the war.

Message from the President

WE MUST CARRY THE TORCH FOR THOSE AT THE FRONT

IN my last message to the membership of the Ohio State Medical Association, comment was made on the great responsibility which rests on the shoulders of the medical profession. The attention of Ohio physicians was called to the necessity of providing the required number of physicians from our State for service with the armed forces.

During the past few weeks a large number of Ohio doctors have closed their offices and gone into uniform and have "thrown the torch" to those on the home front. When they return they can justly call upon us for an accounting of our stewardship.

We must see to it that no sick person in the State of Ohio is without medical care. Medicine must not be cited by her critics on the home front who will, if given opportunity, point to the unavailability of medical care and advise government supervision.

County medical societies must be more active than ever before. Regardless of increased work and fatigue, regular meetings of county societies must continue, with all minds focused on the possibilities of the future. There is every likelihood of radical economic change in the New World which is to come when victory is won and there can be no real victory for democracy if we win on a dozen fields of battle only to lose our inalienable rights on the home front.

Never in the history of Medicine has there been so great a need for county medical society leadership and activity! **Leadership in every county society must be chosen wisely and with the idea in mind that we at home must preserve democracy and medicine as our fellows do their part in crushing tyranny.**

In addition, I earnestly solicit the help of all the medical societies in the State of Ohio in the effort to guarantee to our doctors in the service the positions which they have vacated and the practices which they have left when they return from war. This is a sacred trust. It is the very least that we at home can do. The Ohio State Medical Association will arrange through its Committee on education for post-graduate courses at our medical schools for our returning comrades and we practitioners can return to them their appointments and their work in a medical field not embarassed by government control. This is our duty! This is our program for the duration and **we must not fail!**

EDWARD J. McCORMICK, M.D., President.

Move Launched to Expand Social Security Act to Include Medical and Hospital Benefits; Proposal Explained

PRESIDENT ROOSEVELT on October 9 in a letter to Senator Walter F. George, chairman of the Finance Committee, United States Senate, stated that after the pending tax bill had been disposed of he would submit a plan to expand the Social Security System.

There is no intimation as yet as to what expansions of the Social Security Law will be requested nor is there any intimation as yet as to what the attitude of the Congress will be on the proposals which have been promised.

It is known that the Social Security Board has some definite recommendations in mind which it hopes will be incorporated into the Social Security Law.

Moreover, it is known that many of the Social Security Board's views have been incorporated in a bill, H. R. 7534, now pending before the Ways and Means Committee of the House of Representatives of the present Congress. The bill was introduced by Congressman Eliot, Massachusetts, who at one time was on the staff of the Social Security Board.

The Eliot Bill may not be given consideration by Congress at this time—perhaps that particular proposal will never see the light of day. Nevertheless, it does contain many straws in the wind and it does reveal how some of the men at the helm of the Social Security system are thinking. Some bill of the character is certain to be pushed now or in the near future.

Therefore, it would be well for Ohio physicians to acquaint themselves with the sweeping provisions of the Eliot Bill—see how the question of medical services under governmental control is woven into the measure—so they will be prepared to get into the scrap which is inevitable should the question of expanding the Social Security Law along the lines suggested in the Eliot Bill come before Congress.

For this reason, the following explanation of the Eliot Bill is published and should be read by every Ohio physician:

In General.—This bill, to be cited as the Social Security Act Amendments of 1942, proposes to amend and extend the provisions of the Social Security Act by establishing a Federal Social Insurance System. This System will be financed from a Federal Social Insurance Trust Fund consisting of the securities held by the Secretary of the Treasury for Federal Old-Age and Survivors Insurance Trust Fund (already established under existing law) together with funds to be made available by means of the contributions provided for in the bill. This trust fund will be managed by a Board of Trustees composed of the Secretary of the Treasury, the Secretary of Labor and the Chairman of the Social Security Board, all ex officio. Separate accounts within the trust fund may be established as the Board of Trustees deems necessary or desirable.

Contributions to the Trust Fund.—Employers coming within the provisions of the bill, except as noted below, will be required to make "social insurance contributions" equal to the following percentages of wages paid by them after December 31, 1942; with respect to wages paid during the calendar years 1943, 1944, and 1945, the rate will be 5 per cent; for 1946, 1947, and 1948, the rate will be 5½ per cent; and thereafter the rate will be 6 per cent. Employees will be required to make contributions equal to the same percentages of wages received. The term "wages" does not include that part of the remuneration which, after remuneration equal to $3,000 has been paid to an individual with respect to employment during any calendar year after December 31, 1942, is paid to such individual with respect to employment during such calendar year. The bill also excludes from the meaning of the term "wages" certain other payments made by employers.

Every self-employed individual will make a social insurance contribution equal to the following percentages of the market value of his services rendered as a self-employed individual, after December 31, 1942, with respect to services in self-employment after such date, not including that part of any remuneration for employment and the market value of services in self-employment in excess of $3,000 for any calendar year: for the calendar years 1943, 1944, and 1945, the rate will be 4 per cent; for the calendar years 1946, 1947, and 1948, the rate will be 5 per cent; and thereafter the rate will be 6 per cent.

Services performed in the employ of a corporation, community chest, fund, or foundation, organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes, now exempt from the operation of the Social Security Act, will be brought within the provisions of the act by the pending bill. Employers in such employments will be required to make social insurance contributions as follows: with respect to wages paid during the calendar years 1943, 1944, and 1945, the rate will be 2 per cent; for 1946, 1947, and 1948, the rate will be 2½ per cent; and thereafter the rate will be 3 per cent. Employees in such employments will be required to make contributions at a similar percentage of wages received.

Federal Old-Age, Survivors, and Disability Insurance Benefits.—Existing provisions of the Social Security Act providing for Federal old-age and survivors benefits are amended in numerous respects and, in addition, there is added a provision under which disability benefits will be paid. The term "disability" is defined to mean total and permanent disability to work by reason of illness or injury. An individual is to be considered totally and permanently unable to work when he is afflicted with any impairment which continually renders it impossible for him to engage in any substantially gainful work and which is founded on conditions which render it reasonably certain that it will continue to be impossible to do so throughout the remainder of his life. No individual is to be deemed under disability for any period prior to the sixth month before the month in which he filed application for disability benefits.

In addition to cash disability benefits, the bill will authorize the Social Security Board to "make provisions" for furnishing of medical, surgical, institutional, rehabilitation, or other services to individuals entitled to the cash disability benefits, if such services may aid in enabling the individuals to return to gainful work. Such services, the bill provides, shall be furnished by "qualified practitioners" and through governmental and nongovernmental hospitals and other institutions qualified to furnish such services. The construction of hospitals or other institutions is not authorized. Expenditures for these services may not, during the period January 1, 1944 to June 30, 1945, exceed $400,000. Thereafter, expenditures may not exceed 2 per cent of the total amount expended during the preceding fiscal year for the payment of disability benefits.

This portion of the bill also brings within the Federal Old-Age, Survivors, and Disability Insurance Benefits provisions self employed individuals and certain employments not included under the existing law, such as services performed in the employ of corporations and associations organized for scientific, charitable, and educational purposes.

Federal Unemployment Insurance and Temporary Disability Benefits.—This section proposes to federalize unemployment insurance and temporary disability benefits. Grants that are being made at the present time to States for unemployment compensation will cease after the fiscal year ending June 30, 1944, and the program proposed by this section will become effective. Unemployment benefits, under a schedule set out in the bill, will be paid to the individual by the Federal Government out of the Federal Social Insurance Trust Fund.

Cash benefits are proposed also when an individual by reason of illness or injury is temporarily totally unable to work at his "last, accustomed, or reasonably similar occupation," as may be determined by the Board. To entitle an individual to disability benefits, he must be "certified as disabled," in accordance with such regulations as the Board may prescribe and he must have been continuously disabled for a waiting period of one week immediately prior to any week with respect to which disability is claimed.

In addition to disability benefits otherwise payable, the bill provides a weekly maternity benefit, to be paid in cash, for a period of not more than twelve consecutive weeks, commencing not earlier than six weeks prior to the week in which confinement is expected and terminating not later than six weeks subsequent to confinement. A woman, otherwise eligible for disability benefits, may obtain the maternity benefit if she has during the twenty-six consecutive week period immediately preceding the week in which her confinement is expected to occur complied with such regulations with respect to prenatal care as may be prescribed by the Social Security Board, and if she has during the confinement and during each week subsequent thereto with respect to which she claims the maternity benefits, complied with such rules and regulations as may be prescribed.

Each individual claiming or receiving disability benefits or maternity benefits, if requested by the Board or its duly authorized representative, must submit to an examination by such physician or expert as the Board may designate at such reasonable time and place as the Board or its representative may direct, and any failure or refusal, without good cause, to submit to such examination or an obstruction thereof will result in a forfeiture of such individual's right to such benefits until such examination has taken place.

To aid in carrying out the provisions of this particular section of the bill, the Social Security Board will be required to establish a Federal Advisory Council or Councils composed of men and women representing employers and employees in equal numbers and the public for the purpose of formulating policies and discussing problems related to unemployment, employment, and disability and insuring impartiality, neutrality, and freedom from political influence in the solution of such problems.

ONLY A "FEELER"?

The following statement appeared in an article, "Here In Washington", by Rilla Schroeder, published in the October issue of **Survey Midmonthly:**

"Since Representative Eliot of Massachusetts is a former Social Security Board employe and since he is understood to be in the confidence of the Board it is safe to assume that his bill to amend the Social Security Act (HR 7534) has the Board's approval. It might even be safe to assume that it is the Board's bill. Some such bill has been coming to a boil in the Board's innermost soul for some time.

"Unfortunately Mr. Eliot, who is a good man, was not renominated in his primaries so he will not be back in Washington next January or, at least, not as a member of Congress. Someone else, then, will have to re-introduce the bill, as it is far from probable that any action will be taken on it this Congress. Mr. Eliot knew that, of course, and so did the Board. The introduction of the bill was by way of a 'feeler,' designed to smoke out any opposition."

Federal Hospitalization Benefits.—The hospitalization benefits proposed by this bill will be available to the employed individual and to the wife and dependent children of such individual, provided the employed individual had during a prescribed preceding period been paid wages for employment equal to not less than a stated amount. The term "hospital benefits" is defined to mean an amount not less that $3 nor more than $6, as determined by the Social Security Board after consultation with the National Advisory Hospital Benefits Council to be created by the bill, for each day of hospitalization. In lieu of such compensation, the Board may make arrangements with accredited hospitals for the payment of the reasonable cost of hospital service. Such benefits are not available with respect to any individual whose period of hospitalization was due to an injury or disability arising out of or in the course of any employment, nor, apparently, to self-employed individuals, nor with respect to any day of hospitalization for tuberculosis or for mental or nervous diseases after such diagnosis has been made.

The maximum number of days in any benefit year for which any individual may be entitled to hospitalization benefits will be thirty. If, however, the Board of Trustees finds that a separate account for Federal Hospitalization Benefits in the Federal Social Insurance Trust Fund is adequate, the Board may increase the maximum to not more than sixty days in the following calendar year.

Hospitalization must be in an accredited hospital to entitle an individual to the proposed benefits and the Social Security Board on or before January 1, 1944, must publish a list of institutions found by it to be accredited hospitals. An accredited hospital is defined to mean "an institution providing, at least, bed and board, general nursing care, the use of an operating or of a delivery room, ordinary medications and dressings, laboratory and x-ray services, and other customary hospital care and services, and found by the Board to afford professional service, personnel, and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institution and to have procedures for the making of such reports and certifications as the Board may from time to time require, to assure that payment of hospitalization compensation will be made only to individuals entitled thereto." The term accredited hospital does not include institutions found by the Board to be chiefly devoted to the care of persons afflicted with nervous or mental diseases, tuberculosis, or other chronic illnesses. The Board may accredit a hospital "for limited varieties of cases" and in determining the adequacy of the professional service, personnel, and equipment of any institution may take into account the type and size of community which the institution serves, the availability of other hospital facilities and other relevant matters.

The bill establishes a National Advisory Hospital Benefits Council to be composed of members appointed by the Social Security Board and selected by it from the professions and agencies concerned with the operation of hospitals, and other persons informed on the need for or provision of hospital services. This Council is to be authorized "to advise" the Board with reference to (1) the formulation of standards for accrediting hospitals; (2) the establishment and maintenance of the list of accredited hospitals; (3) the conduct of studies and surveys of the quality of hospitalization services furnished by hospitals; (4) the establishment of special advisory, technical, local or regional committees or commissions; and (5) with reference to such other related matters as in the opinion of the Board may aid it in the administration of the hospitalization benefits program.

The Social Security Board will be authorized, through agreements or cooperative working arrangements with appropriate agencies of the United States, or of any State or political subdivisions thereof, and with other appropriate public agencies and private persons, agencies or institutions, to utilize their services and facilities. Any person entitled to a hospitalization benefit may transfer or assign such benefit to an accredited hospital or to any other agency or institution utilized by the Social Security Board.

The Social Security Board will, from time to time, certify to the Secretary of the Treasury the name and address of each individual entitled to hospitalization benefits and the amounts of such payments. Payments may be made directly to the individual entitled to the benefits or to such other individual, agency, or institution as the Board may prescribe, or if the Board so directs, payments will be transmitted to the Board for distribution in such manner as it may prescribe.

Individuals in Military Service.—This bill contains provisions under which the rights of individuals in service to old age and survivors insurance benefits will be safeguarded and under which unemployment compensation allowances may be granted on termination of military service under conditions set forth in detail in the measure.

BE PATIENT, DOCTOR, AS THE COMMISSION IS HAVING ITS TROUBLES, ALSO!

An appeal to physicians who have fee bills pending with the State Industrial Commission not to be impatient at delays in the payment of such bills, was made by Dr. Robert M. Andre, chief, Medical Section, as The Journal went to press.

Dr. Andre pointed out that the Commission is doing everything possible to pay claims and medical bills promptly but is encountering difficulties which are beyond the power of the Commission to correct at this time.

He stated that there has been a 20 per cent increase in the number of Workmen's Compensation claims filed due to the huge expansion of industrial activities, making it impossible for the Commission to handle claims as rapidly as it would like to do.

Moreover, Dr. Andre referred to the fact that the medical staff of the Commission has been reduced by approximately 50 per cent through death or resignation of physicians entering military service.

"We are doing the best we can to pay fee bills when due," Dr. Andre said, "but the medical profession will have to be patient and cooperate with us until we are able to obtain enough additional personnel to handle the increased amount of work."

Wilmington—Dr. Jonathan Forman, editor of *The Ohio State Medical Journal*, spoke on "Nutrition" at the Clinton County Conservation and Health Conference.

"Eternal Vigilance Is the Price of Liberty"

IT is recommended that every Ohio physician between now and November 3 when he will visit the polls to cast his vote for candidates for state and federal offices, including the Ohio General Assembly and the United States Congress, read an editorial which appeared in the October 10 issue of **The Saturday Evening Post.**

The theme of the article in brief is that the nation under war-time conditions is drifting closer and closer toward a state of national socialism and that the illusion that "collectivism is liberty" is gaining an unbelievably large following. In the following words, the editorial issues this challenge:

"What can the public do to protect itself? It is far from easy. The political and economic issues are so involved, so far beyond the grasp of most of us that the public becomes a milling, confused herd. Is there any one rock of truth to which the common man may cling while the storm rages about him? Is there any one pillar of freedom which is a key to all freedom around which he can concentrate his defenses?

"There is such a freedom. Economic freedom. The freedom to develop his productive abilities, sell them to the highest bidder and retain for himself and his family a fair share of the benefits. When this freedom is destroyed, the entire democratic structure goes with it.

"Eternal vigilance is the price of liberty. Though no obstruction should be placed in the path of military victory, an alert people should check every political move, every law, and through their chosen representatives should make certain that the martial economic law which we now cheerfully accept does not become the permanent law of the land."

We are certain that a physician did not write the above. But, we are equally as certain that it was written by one who is in accord with the basic principle that a free and unshackled medical profession must survive if the health standards of the nation are to be maintained.

On November 3, the physicians of Ohio will have a glorious opportunity to express its views by casting their vote for those who will oppose the destruction of economic freedom; those who will oppose the socialization of medical and health services; those who will oppose conversion of the family doctor into a bureaucratic technician.

To vote intelligently, the physician must know the candidate; must be familiar with his views on these vital questions. Prior to the November 3 election, each member of the Ohio State Medical Association will receive information about certain candidates, based on personal interviews and on an analysis of the records of those who seek re-election.

After giving this data studious consideration, each physician should vote, and vote intelligently on November 3, remembering that "eternal vigilance is the price of liberty." There has never been a time when "chosen representatives" should be selected with greater care.

Changes in Soldiers' and Sailors' Civil Relief Act Made by Bill Enacted by Congress and Approved on October 6

AN explanation of the amended Soldiers' and Sailors' Civil Relief Act which is of interest to every man entering military service has been prepared by the Bureau of Legal Medicine and Legislation of the American Medical Association and was published in the October 17 issue of *The Journal of the American Medical Association.*

It reads as follows and should be studied carefully by all Ohio physicians now in the service and by those anticipating entering the army or navy.

The Soldiers' and Sailors' Civil Relief Act was approved on Oct. 17, 1940. Its purpose, as indicated in an analysis of it that was published in *The Journal of the A.M.A.*, Jan. 24, 1942, page 306, was to free persons in military service from harassment and injury to their civil rights during their term of military service and thus to enable them to devote their entire energy to the national defense. Experience under the act, however, has disclosed many defects and shortcomings, and numerous bills have been introduced in Congress dealing with specific problems that have arisen. A subcommittee of the House Committee on Military Affairs was appointed to study the various proposals and as a result of that study legislation was drafted, H.R. 7164, to extend the relief and benefits provided under the original act. This bill has now passed the House and Senate and was approved by the President on October 6.

IN GENERAL

The new law extends benefits to transactions that have occurred since Oct. 17, 1940. It extends benefits to persons who serve with the forces of any nation with which the United States may be allied in the prosecution of the war and who immediately prior to such service were citizens of the United States. Persons who have been ordered to report for induction under the Selective Training Service Act will be entitled to benefits during the period beginning on the date of receipt of such an order and ending on the date on which such person reports for induction. Any member of the Enlisted Reserve Corps who is ordered to report for military service will be entitled to benefits during the period beginning on the date of receipt of such order and ending on the date on which he reports for such service. The Secretary of War and the Secretary of the Navy are required to make provision in such manner as each may deem appropriate for his respective department, to insure the giving of notice of the benefits accorded by the act to persons in and to persons entering military service.

LEASES

Of particular interest to physicians is the new provision relating to leases. Under the original act no provision was made for the cancellation of leases, nor did the section relating to leases apply to leases on property used for office purposes. The new law applies to any lease covering premises occupied for dwelling, professional, business, agricultural or similar purposes in any case in which *(a)* such lease was executed by or on behalf of a person who, after the execution of such lease, enters military service and *(b)* the premises so leased have been occupied for such purpose or for a combination of such purposes by such person or by him and his dependents.

Any such lease may be terminated by notice in writing delivered to the lessor (or his grantee) or to the lessor's (or his grantee's) agent by the lessee at any time following the date of the beginning of his period of military service. Delivery of such notice may be accomplished by placing it in an envelope properly stamped and duly addressed to the lessor (or his grantee) or to the lessor's (or his grantee's) agent and depositing the notice in the mails. Termination of any such lease providing for monthly payment of rent will not be effective until thirty days after the first date on which the next rental payment is due and payable subsequent to the date when such notice is delivered or mailed. In the case of all other leases, termination will be effected on the last day of the month following the month in which the notice is delivered or mailed, and in such case any unpaid rental for a period preceding termination shall be proratably computed and any rental paid in advance for a period succeeding termination must be refunded by the lessor (or his assignee).

On application by the lessor to an appropriate court prior to the termination period provided for in the notice, any relief granted by the act will be subject to such modifications or restrictions as, in the opinion of the court, justice and equity may in the circumstances require.

Any person who knowingly seizes, holds or detains the personal effects, clothing, furniture or other property of any person who has lawfully terminated a lease covered by the act or in any manner interferes with the removal of such property from the premises covered by the lease, for the purpose of subjecting or attempting to subject any of the property to a claim for rent accruing subsequent to the date of termination of the lease, or attempts so to do, will be guilty of a misdemeanor and punishable by imprisonment not to exceed one year or by a fine not to exceed $1,000 or both.

STORAGE LIENS

A new section clarifies the original act in connection with the protection of persons coming into service from foreclosure or storage liens on household goods stored for the period of military service. No person may exercise any right to foreclose or enforce any lien for storage of household goods, furniture or personal effects of a person in military service during such person's period of service and for three months thereafter except on an order previously granted by a court. In such a proceeding the court may, unless in the opinion of the court the ability of the defendant to pay the storage charges due is not materially affected by reason of his military service, *(a)* stay the proceedings or *(b)* make such other disposition of the case as may be equitable to conserve the interest of all parties.

BENEFITS ACCORDED DEPENDENTS

The dependents of a person in military service will be entitled, on application to a court therefor, to the benefits accorded to persons in military service in connection with rents, instalment contracts, mortgages, liens, assignments and leases, unless in the opinion of the court the ability of such dependents to comply with the terms thereof has not been materially impaired by reason of the military service of the person on whom the applicants are dependent.

INSURANCE PREMIUMS

The benefits of the act in connection with insurance premiums are extended to policies up to $10,000 face value. In order to obtain the benefits, the insured must make written application to the Administrator of Veterans' Affairs. If the insured is outside the continental United States, excluding Alaska and the Panama Canal Zone, the beneficiary may apply for the benefits. The term "policy" is defined to include any contract of life insurance or policy on a life, endowment or term plan, including any benefits in the nature of life insurance arising out of membership in any fraternal or beneficial association. The policy must not provide for the payment of any sum less than the face value thereof or for the payment of an additional amount as premiums if the insured engages in military service. It must not contain any limitation or restriction on coverage relating to engagement in or pursuit of certain types of activities which a person might be required to engage in by virtue of his being in the military service. The policy must (1) have been in force on a premium-paying basis at the time of application for benefits and (2) must have been made and a premium paid thereon before Oct. 6, 1942, and not less than thirty days before the date the insured entered into military service. The benefits are not applicable to policies or contracts issued under the War Risk Insurance Act, the World War Veterans Act or the National Service Life Insurance Act of 1940.

The Veterans' Administration is required to give notice to the military and naval authorities of the provisions of the act and must include in such notice an explanation of the provisions for the information of those desiring to make application for the benefits. An insured will have two years after the period of military service to repay premiums guaranteed by the government under the act. Interest on such premiums will be payable at the same interest rate as fixed in the policy for policy loans.

MISCELLANEOUS BENEFITS

The section of the original act which authorized in certain circumstances the repossession of automobiles of persons in military service is repealed. A new section prohibits interest at a rate in excess of 6 per cent on obligations of persons in military service incurred prior to his entry therein. A court may grant certain relief with respect to mortgages and taxes on property owned by persons not in military service when the rent for such property is not paid by dependents of persons in military service. The protection provided by the original act in respect of taxes on real property is extended to include taxes (other than income taxes) on personal property. The requirement that such taxes must have fallen due during the period of military service has been eliminated, as has also been the requirement that the person in military service must file an affidavit with the tax collector in order to prevent sale for delinquency without court action. A new section grants to persons in military service relief for a specified period after military service in order to enable them to liquidate their liabilities in an orderly fashion and not be subject to the accrual and payment of these liabilities all at one time. The court may grant an order staying enforcement of obligations either for a period of time equal to the period of military service, or in the case of certain real estate mortgages and contracts, for a period of time equal to the remaining life of the contract plus the period of military service.

Springfield—Dr. Rush R. Richison has been appointed city health commissioner. He has been health commissioner of Clark County since 1920, and is succeeded in that position by Dr. Robert M. Taylor, North Hampton.

Physician's Certificate Required to Obtain Auxiliary Supply of Fuel Oil for Health Needs, OPA Rules

SINCE Ohio is one of the states in which fuel oil is being rationed, Ohio physicians will be interested in the method which has been worked out by which households may obtain auxiliary rations to meet special health needs.

The method is explained by Joel Dean, director, Fuel Rationing Division of the Office of Price Administration, in a letter to the editor of *The Journal of the American Medical Association.*

In its issue of October 10, *The Journal of the A.M.A.* commented as follows, appending excerpts from Mr. Dean's letter:

"Illness, old age or infancy may make necessary auxiliary rationing of oil; consumers may obtain such auxiliary rations by applying to the local rationing board, accompanying the application with a certificate from a licensed physician. In supplying such a certificate the physician is to give the date, the name and the address of the householder. Furthermore, he must certify the nature of the illness, whether acute or chronic, whether or not it is of the type requiring higher indoor temperature, the approximate temperature required and the approximate period for which the supplemental base heat is needed. The physician may at his discretion state the nature of the illness or may give additional information that will be helpful. The applicant himself files the certificate with the local rationing board. Furthermore, as a check, advisory committees are to be set up for each local rationing board. These advisory committees will include two licensed physicians and the county or local health officer. They will review cases in which certificates are questioned or in which a professional opinion is desired. Thus comes to the medical profession another call for its special services in wartime. Civilian physicians will no doubt do their utmost to aid in this work as another contribution to the war effort."

In his letter to the editor Mr. Dean explains that:

> Enemy action and the greatly increased burden of the war effort have so seriously curtailed the transportation of petroleum products that households this winter can be heated only by limited supplies of fuel oil; consequently the problem of maintaining health in temperatures lower than usual is not only difficult but must be solved to prevent illness. Before the war the East Coast received about 95 per cent of its oil by means of tankers. So many of these tankers have gone down that an extremely serious dislocation in our petroleum distribution system has come about. In view of the resultant urgent necessity to share limited supplies fairly, the Fuel Rationing Division of the Office of Price Administration has drawn up a plan for the rationing of fuel oil in thirty states designated by the War Production Board. The fullest patriotic cooperation of your profession will be necessary and without doubt will be given.
>
> Basic rations for fuel oil will be alloted householders by the Office of Price Administration through its rationing boards. This ration will be based on past consumption (adjusted for normal weather) and on the thermal efficiency of the house as indicated by a heat loss floor area formula developed and tested by top flight heating engineers. Provision will also be made for auxiliary rations to households in which illness or the infirmities of old age make necessary temperatures higher than that afforded by the basic ration. . . .
>
> The success of the rationing plan in meeting the fuel oil emergency equitably and effectively will depend in large part on the kind of patriotism and conscientious cooperation that the medical profession has always given in times of emergency. . . .

OPA Asks Cooperation of Physicians In Sugar Rationing Program

Ohio physicians have been requested by Mr. R. F. Boda, State Rationing Officer of the Office of Price Administration, to specify the amount of sugar that is required when writing certificates petitioning rationing boards to allow extra sugar for their patients for medical reasons.

According to Mr. Boda, there have been instances in which physicians' certificates have been presented to Ohio rationing boards stating only that the patients needed extra sugar. Since rationing board members are not competent to determine how much additional sugar is required in these cases, Mr. Boda urges that all such physicians' certificates indicate the exact amount needed. Physicians may in their discretion state the nature of the illness for which the sugar is required, although, according to OPA officials, this is not absolutely necessary.

It is requested, however, that physicians be conservative in estimating their patients' needs for additional sugar so that such medical certificates will not become a popular means of attempting to abuse the rationing regulations.

Correction Issued By Commission

The U. S. Civil Service Commission has asked that *The Journal* print a correction regarding a statement made in their press release regarding the omission of high school education as a requirement for Public Health Nurse positions. This statement was made in error by the Commission. In effect the educational requirements for Public Health Nurse cannot be obtained without completion of high school education.

WAR NOTES

Following two months spent in England as a civilian on a secret mission for the United States Office of Scientific Research and Development, Dr. William F. Machle, Cincinnati, was recently commissioned a lieutenant colonel in the Army medical corps and assigned to organize and take charge of the Armored Forces' Medical Research Laboratory at Fort Knox, Ky. This laboratory will be devoted to the study of physiological and medical problems arising from the operation of mechanized combat vehicles.

* * *

Promotion of Dr. Paul Hawley, native of College Corner, Ohio, to the rank of brigadier general was recently recommended by President Roosevelt and confirmed by the Senate. General Hawley has been in England since September, 1941, as chief of the Army medical service in the British Isles. He is the son of the late Dr. W. H. Hawley and the grandson of the late Dr. A. B. Hawley, both of whom practiced medicine in College Corner for more than a half century. Following his graduation from the University of Cincinnati College of Medicine in 1915, General Hawley practiced medicine for a year in College Corner with his father.

* * *

Another physician, native to Ohio, and serving with the armed forces abroad is Lt. Col. Perrin H. Long, of Johns Hopkins Medical School, Baltimore, whose family resides in Bryan. Colonel Long, who is widely known for his work in development of the sulfonamides, was flown to England recently in an Army plane on a special mission.

* * *

Press dispatches from New Delhi, India, describe an all-American hospital being operated by Army medical officers there, one of whom is Lt. Karl S. Ulicny, of Salem.

* * *

Maj. T. A. Peebles, former Lorain county coroner, was recently named chief surgeon of an inland Army hospital in Australia. Recently constructed, the hospital has been taken over entirely by American forces.

* * *

Lt. Deane H. Northrup, Marietta physician now in the Army Medical corps, writes that about a dozen of the medical officers of the Station Hospital at New Orleans Staging Area are Ohioans. Describing their hospital, he says it is part of the New Orleans Port of Embarkation and that most of its patients are from nearby camps housing troops temporarily before leaving for duty overseas.

* * *

Dr. Albert H. Pearlman, Cincinnati physician now a first lieutenant in the Brtish Royal Army Medical Corps is serving with the Middle East Forces, presumably in Egypt, according to cabled information received by his family.

* * *

Capt. R. D. Myers, Columbus physician, has been sent to Columbia University on Army orders to take a special 12-week postgraduate course in anesthesiology.

* * *

Writing from the Air Corps service depot base in England to which he has been assigned, Capt. John Riebel, Ashland physician, told friends at home: "Come visit me some night when Jerry is overhead and there is not enough light to see your hands. I saw the origin of one of our first All-American raids. The sergeant in charge who designates the crews told me he makes up the roster, posts it, and then locks himself up for the next two hours. This is a matter of self protection since everyone not designated to go personally goes in to lick hell out of the sergeant for slighting them."

* * *

En route to his newly assigned station at Kelly Field, Texas, Lt. Malcolm E. Switzer, Galion physician, had an early opportunity to treat accident casualties when the train in which he was riding collided with an oil freight train in Illinois, killing three trainmen and injuring several passengers.

* * *

Capt. Lovell W. Rohr, Columbus physician, has been transferred from Fort Sam Houston, Texas, to the Station Hospital at the Oklahoma City, Okla, Air Corps Depot to take charge of its industrial hygiene program.

* * *

Among Ohio physicians who have reported safe arrival in England by cable to their families are Capt. Frederick R. Guilford, Columbus, and Lt. Walter J. Tims, Youngstown. Captain Guilford, a graduate of the Ohio State University College of Medicine, was commissioned in the medical corps in 1941 and attended the School of Aviation Medicine, Randolph Field, Tex. After he received his diploma as a flight surgeon, he was stationed at Hamilton Field, Calif., and later at Westover Field, Mass. Lt. Tims, a former assistant pathologist at Youngstown Hospital, is also serving with the Army Air Forces.

* * *

Dr. Delbert A. Minder, Columbus physician now serving as a captain in the Army medical corps, has been selected to take a postgraduate course in neurosurgery at the University of Illinois Medical School, Research Division.

* * *

Rear Admiral Kent C. Melhorn, Navy medical officer whose recent promotion to that high rank was recommended by President Roosevelt and approved by the Senate, is a native of Kenton and a graduate of Kenton High School. He took premedical training at Ohio Northern University. A graduate of the University of Pennsylvania College of Medicine, Admiral Melhorn has been in the Navy since 1907 and has had a colorful career replete with shipwrecks, diplomatic missions, and fleet commands.

* * *

Capt. A. Morton Karlan, Springfield physician serving with the 65th Army Air Forces Flying Training Detachment, Decatur, Ala., writes to *The Journal* that "The news of my fellow physicians of Ohio entering duty with the Army and Navy is encouraging. The shortage in medical personnel is readily being corrected with all the adjustments taking place, and this heartening news is quite evident in your October issue."

* * *

Dr. James M. Ruegsegger, former Cincinnati physician, is now serving as special consultant to the Secretary of War and member of the Commission on Acute Respiratory Diseases of Station Hospital No. 2, Fort Bragg, N. C.

* * *

Dr. Helen Coffin, Painesville physician, who accompanied her husband, also a physician, on his Army Medical Corps assignment to Camp Shelby, was recently appointed assistant health director for Forrest County, the Mississippi county in which the camp is located.

* * *

Two Toledo physicians were among the 28 Army medical officers who completed a special individualized course of instruction at Carlisle Barracks, Pa., and left immediately for posts in medical battalions of new infantry divisions being activated. The Ohio graduates in this special class at the Medical Field Service School are Capt. Henry A. Burstein and Capt. Isadore A. Shapiro, both of Toledo.

* * *

Capt. Woodrow S. Hazel, Youngstown, and Lt. William R. Calland, Barberton, are among the Army medical officers enrolled at the School of Aviation Medicine, Randolph Field, Texas, in the current course to train aviation medical examiners.

* * *

Capt. Thomas A. Weaver, Jr., Cincinnati, is one of the officers on the staff of the Army's 27th Evacuation Hospital, a University of Illinois unit, which was ordered to active duty in October.

* * *

A class of 241 medical administrative corps officers was graduated from the Medical Field Service School, Carlisle Barracks, Pa., recently. These newly commissioned second lieutenants will assume administrative positions with medical units, thus releasing medical corps officers to take on more professional duties. All members of the class were selected from the ranks of enlisted men for their outstanding ability and performance of duty.

* * *

The Army's present methods of yellow fever control are of more than casual interest for Lt. Col. Thomas M. England, medical administrative corps officer serving in the office of the Fifth Service Command surgeon at Fort Hays, for Colonel England was one of the soldiers who volunteered as "guinea pigs" for the classic experiments in Cuba by Maj. Walter Reed which spelled the end of this age-old health menace of the tropics. Now serving in his third major war with United States troops, Colonel England passed retirement age some time ago but refused to "go on the shelf."

* * *

According to a newspaper article said to be based on a letter from Lt. Col. William C. McCalley, one of the Cleveland physicians on duty in Australia, he has been named to a medical group which is charged with responsibility for the personal health of Gen. Douglas MacArthur and his family.

Joins Staff at Antioch

Among new members of the staff of the Samuel S. Fels Research Institute on the Antioch College Campus, Yellow Springs, is Dr. Ella Langer, who has been engaged in research in pediatrics at Johns Hopkins University School of Medicine, Baltimore, for the last several years. Dr. Langer was formerly director of the pediatric clinic at the University of Vienna and served at one time as municipal school physician in Vienna. She is a graduate of the University of Vienna.

Interesting News About the Ohio Boys "Down Under" Found In Letters Written by Two Cleveland Physicians

TWO interesting letters were recently received by Cleveland physicians from colleagues on military duty overseas and published in part in the Cleveland Academy Bulletin. Major David Chambers, a member of the Fourth General Hospital or "Lakeside Unit," is the author of one from Australia. He writes, in part:

"We've been here just four months. When we came, all of us felt like heroes, for the trip was long and tiresome and though no one told us anything, we rather suspected that ours had been a perilous crossing. In February, Yanks, as we were commonly known, much to the discomfiture of Ike (Maj. Irvin C.) Hanger and Bill (Major. William A.) Read, were curiosities and the youngsters asked us for pennies. The old men stopped us on the streets to ask us home to tea, beer or dinner and a pleasant evening; and the old ladies almost kissed us on the streets. All the young men were away, on odd jobs in Libya, Singapore, and Java. There was no cheering, no flag-waving, no bands, and there has been none since. All of the boys, before landing, were dolled up in the first pair of pressed pants they'd seen since leaving New York, and the braid sort of expected to find white chargers on the dock, but there were none.

"Our crowd is still intact, though various ones have been on special assignments all over Australia—Harper (Maj. E. O.) convoying a few lunatics to a port of embarkation, Bronson (Capt. L. H.) checking up on Weil's spirochaeta in the North, Joe Kahn (Capt. Joseph R.) straightening out the water supply in Darwin, and McCally (Lt. Col. W. C.) sipping tea with generals, governor-general and their wives. We recuperated for about five or six weeks, living in a camp, until our hospital was ready to be taken over. All of us were rested, and extremely impatient to be doing something.

"It is utterly amazing, to a doctor, how everything in the way of personnel, equipment, supplies and red tape arrives so casually on a distant scene. We were told, at the outset, to run a hospital as a good civilian hospital should be run, and the way it has been run is a credit to the Army, and to the boys who've run the show. McCally has done a splendid job—a really marvelous one—and much of the credit is due to him, so far as outside contacts are concerned. Joe (Lt. Col. J. M.) Hayman has managed his service to perfection, to the everlasting credit of dear old Lakeside. Since Mac has ascended to command of the unit—our regular army colonel having been boarded home—Pat (Maj. Donald M.) Glover has assumed charge of the surgical service.

"Good old Roger (Probably Maj. R. O. Egeberg) keeps everyone's spirits up—he and I are at the moment, detached from the Hospital and doing an odd job elsewhere, in the same town. In our temporary position, we come in contact with many officers of other units and are constantly reminded of the high esteem in which the 4th General is held."

* * *

The other letter is from Lt. Comdr. A. Carlton Ernstene, who has been on duty with a Navy medical unit in New Zealand for several months. Extracts from his letter follow:

"On the medical side, we are everything from General Superintendent down to Interns for there are no other medical officers. It's a queer setup, and both of us are doing things we never anticipated in the least. Because there are just the two of us, we both stay on duty all day, every day and relieve each other on the night calls every other night. Even when we go out for a walk in the afternoon, we have to go alone because the hospital must be covered. The reason that the walks are in the afternoon is that there is a total black out each night—and total down here means just that. Flashlights are permitted but even then you may run into people or stumble into a hole in the pavement or fall in a puddle of water. So it's much more comfortable to stay indoors after dark. Walking around here gives one real exercise. A part of the business section is flat but the rest of the city is built on high hills or low mountains. So one does a good deal of climbing.

"A business man visited the hospital a couple of days ago and has a geologist friend who is going to spend an evening with us soon to tell us about general geology and mineral resources. And this afternoon while I was taking some snapshots in the botanical garden, a man stopped me and started to tell me about many of the trees. It all ended up by his inviting Jim and me to visit him on Saturday afternoon; he apparently is quite a horticulturist and wants to show us his place. This will give you some idea of the hospitality of the people. They certainly are most friendly and kind. Next Thursday evening I have an invitation to dinner with one of the doctors in town. So I suppose by the time we leave, we will genuinely regret it.

"The only transportation we have is a pair of ambulances of the field type. They are rough riding scamps so we do a great deal of walking.

We could have had a jeep if we had been willing to trade in one of the ambulances, but if you have ever ridden in a jeep you know it is no fun when it is raining. The ambulances at least have side curtains.

"Down here there are lots of new kinds of cookies Mom could learn to make. There is one kind they call 'Cornies' that are made out of corn flakes, brown sugar and whatever else one needs to make them stick together. The people have tea and cookies in the middle of the morning and again in the afternoon, in addition to three or four regular meals. The funny thing is though that there are practically no fat people.

"In this country there are no native trees that shed their leaves, so whenever you see a tree without leaves you know it has been brought from some other country. Many of the trees have blossoms, and one of them has a flower exactly like the lily-of-the-valley. One of the prettiest sights right now are the camellia trees which are all in blossom. I always thought camellias grew on a plant but the trees are enormous and just covered with flowers. The rhododendrons are just coming into bloom, and the pansies and geraniums are out.

"At the downtown station, one of the airport officials met us and rode us out to the field in the back with us. He introduced us to the pilot and co-pilot and told them to show us the points of interest. So Jim rode for awhile with the pilot while the co-pilot pointed things out to me. After our one and only stop—ten or fifteen minutes for tea—we left the usual course for quite awhile in order to climb up and circle a snow-covered peak with a frozen lake almost at its crest. Soon after that we circled over a semi-active volcano and had a good chance to look down and see smoke or steam coming out of the crater vent. Then back onto our course and into here. The plane was a 12-passenger Lockheed, and some of the passengers who had flown the trip a number of times told us they had never had a treat like that."

Narcotics To Be Allocated

The United States Bureau of Narcotics has been authorized, in a directive from Donald Nelson, chairman of the War Production Board, to allocate narcotic drugs in such a manner and to such an extent as it may deem "necessary or appropriate in the public interest and to promote the national defense." Full power over manufacture, sale, and shipment of narcotics is given to the Bureau in the directive, and from time to time the chairman of the WPB may delegate to it additional authority over this group of drugs. Narcotics are defined in the directive as opium, coca leaves, cocaine, or any salt, derivative, or preparation of opium, coca leaves, or cocaine.

Series of Courses in Gas Warfare For Physicians To Be Held in Columbus, Nov. 16, 23 and 27

First of several proposed six-hour courses for Central Ohio physicians in the medical aspects of gas warfare will be given under joint auspices of the Ohio State University College of Medicine and the Columbus Academy of Medicine in Columbus on Nov. 16, 23, and 27. The first meeting, Nov. 16, will take the place of the regular Academy meeting and will be held at 8:30 p.m. in the Columbus Art Gallery. The latter two will be held at 8 p.m. on their respective nights in Starling-Loving University Hospital. This series of three meetings will be for Columbus physicians only.

In accord with plans of the medical division of the Office of Civilian Defense, Ohio State University College of Medicine proposes to offer such instruction in gas warfare to all practicing physicians in central Ohio. Dates for the other courses will be announced later.

Similar projects are being planned by the University of Cincinnati College of Medicine and Western Reserve University School of Medicine for physicians in their respective sections of Ohio.

Pursuant to action by The Council of the Ohio State Medical Association, at its meeting Sept. 20, the association's assistance and facilities are being made available to the Office of Civilian Defense and Ohio's medical schools in arranging details of these special courses for the practicing physicians of the state.

Instructors for the course in Columbus announced here will be: Dr. Charles A. Doan, professor of internal medicine, director; Dr. Paul Charlton, assistant professor of clinical surgery, associate director; Dr. Roll H. Markwith, state health director and state director of Emergency Medical Services; Maj. W. W. Towne, sanitary engineer in the Ohio Department of Health; Mr. Merle Paul, state gas consultant; Mr. Howard M. Simmons, senior gas officer for Columbus; and Dr. Clayton Smith, Dr. Albert M. Frost, Dr. E. Harlan Wilson, Dr. Harry Reinhart, and Dr. Herman Hoster, all of the College of Medicine faculty.

Pertinent literature will be distributed to the physicians who attend the course and motion pictures will be used to illustrate some of the instruction. All physicians who are responsible for civilian health for the duration of the war are urged to attend such meetings in their sections of the state in order to be prepared to cooperate with Civilian Defense officials in the event of gas casualties from either sabotage or enemy air action.

Announcing

A SUPPLEMENTAL ALUMINUM THERAPY

Aluminum hydroxide gel is accepted therapy in the management of peptic ulcer. Its impressive record of effectiveness suggested the development of an alternate aluminum preparation to meet particular requirements in certain cases.

Phosphaljel,* Wyeth's Aluminum Phosphate Gel, was originated by Wyeth and was used experimentally in the first successful attempt to prevent postoperative jejunal ulcer in Mann-Williamson dogs. Some animals were allowed to develop Mann-Williamson ulcers and the effectiveness of Phosphaljel was further demonstrated when its administration was followed by prompt healing of these lesions in every case.[1]

In man, Phosphaljel was found to be most effective in peptic ulcer following gastrojejunostomy, a condition which appears to be analogous to the Mann-Williamson ulcer in dogs.[1]

Phosphaljel contains 4% aluminum phosphate and possesses antacid, astringent and demulcent properties analogous to those of aluminum hydroxide gel.

[1] *Fauley, G. B.; Freeman, S.; Ivy, A. C.; Atkinson, A. J., and Wigodsky, H. S.: Aluminum Phosphate in the Therapy of Peptic Ulcer, Arch. Int. Med. 67: 563-578 (March) 1941.* *Reg. U. S. Pat. Off.

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In Memoriam

Ladimer Joseph Blaszczak, M.D., Cleveland; Loyola University School of Medicine, Chicago, 1936; aged 34; member of the Ohio State Medical Association and the American Medical Association; died August 29. Dr. Blaszczak practiced in Cleveland for six years. He was chief physician for the Polish Roman Catholic Union, and a member of several Polish fraternal organizations. Surviving are his widow, a daughter, a son, his parents, three sisters and three brothers.

Hugh Hill Dorr, M.D., Columbus; Ohio State University College of Medicine, 1909; aged 57; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 1. Well known by many Ohio physicians, Dr. Dorr was chief medical examiner for the State Industrial Commission, with which he had been associated since 1914. He was previously on the staff of the Athens State Hospital. Dr. Dorr was a member of the Holy Name Society. Surviving are his widow, his mother, three sons—including Capt. Hugh C. Dorr, M.C., A.U.S., a daughter, a sister and a brother.

W. R. L. Dwyer, M.D., New Plymouth; Medical College of Ohio, Cincinnati, 1883; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died September 24. Dr. Dwyer retired in 1935 after having practiced many years in Vinton, Athens and Highland counties. A son survives.

John Daniel Estell, M. D., Cincinnati; Eclectic Medical College, Cincinnati, 1902; aged 66; died August 28. Dr. Estell retired five years ago after having practiced in Cincinnati for 35 years. His widow, a sister and a brother survive.

Jacob Meyer Heyde, M.D., Loudonville; Jefferson Medical College, Philadelphia, 1900; aged 64; former member of the Ohio State Medical Association and the American Medical Association; died September 2. Dr. Heyde practiced in Loudonville for 26 years, retiring three years ago because of ill health. He was a former president of the Ashland County Medical Society. Dr. Heyde was a veteran of World War I, and a member of the Masonic Order, Odd Fellows Lodge and the American Legion. Surviving are his son, First Lieutenant Edward C. Heyde, Wooster, M.C., A.U.S., and two brothers.

Wenzel August Medlin, M.D., Cleveland; Western Reserve University School of Medicine, 1900; aged 65; member of the Ohio State Medical Association and the American Medical Association; died September 18. Dr. Medlin practiced in Cleveland for nearly 40 years. He was a member of the staff of Lutheran Hospital. During World War I, Dr. Medlin was a captain in the Medical Corps of the U.S. Army. His widow and two sisters survive.

Casper F. Melcher, M.D., South Bloomingville; Eclectic Medical College, Cincinnati, 1895; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died September 30. Dr. Melcher practiced in South Bloomingville for 44 years. Surviving are his widow, six daughters and a son.

Francis Henry Schlink, M.D., Cleveland; Miami Medical College, Cincinnati, 1880; aged 86; died September 15. Dr. Schlink retired 16 years ago after having practiced in Delphos and New Riegel for 46 years. Surviving are two daughters and two sons—Drs. Albert G. and Henry A. Schlink, Cleveland.

John Larkin Walker, M.D., Hillsboro; University of Cincinnati College of Medicine, 1931; aged 37; member of the Ohio State Medical Association and the American Medical Association; died September 12. Dr. Walker practiced in Highland County for 10 years. His mother and a sister survive.

Annual Postgraduate Day of Toledo University To Be on Nov. 6

The annual medical Postgraduate Day of the University of Toledo will be held Friday, Nov. 6, in Henry Doermann Theatre on the University Campus. This year's course will be dedicated to Dr. E. W. Heltman, one of Toledo's early eye, ear, nose, and throat specialists.

Speakers for the day-long program will be Dr. Brien T. King, Seattle, Wash., and Dr. John J. Moorhead, New York. Attending surgeon at Providence, Swedish, and Maynard Hospitals, Seattle, Dr. King is widely known for his work in surgery of the neck. He is in charge of the goiter service of King County Hospital, Seattle.

Dr. Moorhead is the New York surgeon who happened to be lecturing on traumatic surgery in Honolulu at the time of the raid on Pearl Harbor and later wrote so graphically of the experiences of both civilian and military physicians in handling the casualties. He is consulting surgeon to a large number of hospitals in New York and its metropolitan areas.

Dr. King's topics will be "Deep Infections of the Neck" and "A New and Function-Restoring Operation for Bilateral Abductor Cord Paralysis." Dr. Moorhead's subjects will be announced later.

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Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D., CINCINNATI)

ADAMS

Scientific speakers at the regular monthly meeting of the Adams County Medical Society, held Oct. 21 at Modern Woodman Hall, Winchester, were Dr. Harry F. Rapp, Portsmouth, Dr. S. J. Ellison, West Union, and Dr. Symmes Oliver, Cincinnati. Business sessions, including a report of the Legislative Committee, constituted part of the program.—O. T. Sproull, M.D., secretary.

BUTLER

Use of sulfonamides in the various fields of medical practice was the subject of a panel discussion presented at the meeting of the Butler County Medical Society Oct. 22 at the Mercy Hospital Nurses' Home, Hamilton. Participants and the fields they represented were: Dr. E. M. Morris, eye, ear, nose, and throat; Dr. L. E. Valker, dermatology; Dr. M. E. Gardner, obstetrics; Dr. J. A. Mackie, urology; Dr. W. H. Roehll, medicine; and Dr. E. O. Bauer, surgery. —Mabel E. Gardner, M.D., secretary.

HAMILTON

Dr. Robert A. Kehoe, Dr. Karl V. Kitzmiller, and Dr. Leon Goldman, all of Cincinnati, constituted a panel on "Respiratory Injuring War Gases" which presented the program for the Cincinnati Academy of Medicine meeting, Oct. 6, at the Academy's headquarters.

"The Role of Protein in the Diet" was discussed by Dr. A. Ashley Weech, professor of pediatrics, University of Cincinnati College of Medicine, at the meeting of the Academy Oct. 20.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MIAMI

Seven and a half months' experiences in a Japanese concentration camp were recounted for members of the Miami County Medical Society and its Woman's Auxiliary at their joint meeting Oct. 8 at the Piqua Country Club by Miss L. B. Hough, Dayton, who returned to America recently on the refugee boat S. S. Gripsholm. A dinner followed the meeting.—G. A. Woodhouse, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

AUGLAIZE

Members of the Auglaize County Medical Society, at their regular meeting Oct. 8 in the courthouse, Wapakoneta, heard a discussion of hemorrhoids, illustrated with natural color slides, by Dr. C. E. Savage, Lima. Following his talk there was a discussion by members of wartime medical problems.—Charles C. Berlin, M.D., secretary pro-tem.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The Academy of Medicine of Toledo and Lucas County presented the following meetings at the Academy Building in October:

Oct. 2.—A general meeting at which the speaker was Lt. C. R. Forrester, a member of the Academy now on duty with the Navy Medical Corps, who told of his experiences during the Japanese attacks on Midway Island.

Oct. 9—Mr. Arthur Rigby, of the Rupp and Bowman Co., discussed "Protection Against War Gases" at a meeting of the section on pathology, experimental medicine, and bacteriology.

Oct. 16—A meeting of the section on medicine.

Oct. 23—A meeting of the section on eye, ear, nose, and throat.

Oct. 30—A meeting of the section on surgery. —Bulletin.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

General and sectional meetings of the Cleveland Academy of Medicine in October, all held at the Medical Library Auditorium, included:

Oct. 16—Dr. Frederic Andrew Gibbs, Boston, spoke on "Diagnostic Standards in Electroencephalography," and his paper was discussed by Dr. L. J. Karnosh, Cleveland. Dr. Charles Eric Henry, of the Brush Foundation Laboratory, Western Reserve University School of Medicine, outlined the history and development of electroencephalography preceding Dr. Gibbs' paper, and there were several exhibits pertinent to the program subject.

Oct. 14.—A panel on "Civilian Aspects of War Gases" was presented for the section on internal medicine by Dr. J. Seifter, Dr. R. M. Stecher, and Dr. J. W. Holloway, all of whom were members of the School of Chemical Warfare conducted by the Office of Civilian Defense and the University of Cincinnati College of Medicine.

Oct. 28.—Speakers and their topics for the section on obstetrics and gynecology were: W. W. Greulich, Ph. D., "An X-Ray Study of the Development of the Pelvis in Puberal Girls;" Dr. Marion Douglas, "Masculinizing Tumors of Ad-

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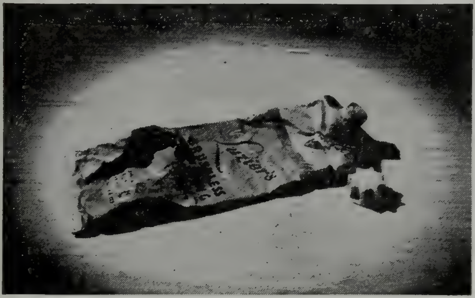

Today metal is vital; it is needed to produce our implements of Victory—guns, tanks, jeeps, aircraft, munitions ...— Today you cannot buy a tube of shaving cream or toothpaste without turning in an old tube. When this conservation order was proclaimed there were the usual few persons who griped about it. But then there are always a few *"gripers"* on hand—you know, sourpusses who complain about everything, blame everybody but themselves, and contribute absolutely nothing to the common good. Come to think of it, though, it's perhaps a good thing we have such persons; they serve as a comparison by which we can appreciate the simple greatness, the kindness and ruggedness and good humor of the average American, who uncomplainingly shoulders his country's burdens, jokes about the effect on himself of the rationing of foodstuffs and gasoline and rubber, and has his own unprintable opinion of *Hoarders* and *Gripers* ...— Funny, but an old metal tube has almost become a symbol of our national character. Every day hundreds of thousands of persons turn in old metal tubes, and in the aggregate these tubes represent a considerable quantity of metal—not only metal in the literal sense, but figuratively the mettle of a people who know that the winning of this war depends on every single one of us contributing his full share, even though it be just an old metal tube.

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At a special meeting immediately preceding the general meeting Oct. 16 members voted on constitutional changes.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. S. R. Zoss, Youngstown, discussed "Modern Concepts of Allergy" at the regular meeting of the Columbiana County Medical Society held at American Legion Hall, Lisbon, Oct. 13.—Guy E. Byers, M.D., secretary.

MAHONING

A symposium of the medical aspects of chemical warfare was presented for members of the Mahoning County Medical Society at its meeting Oct. 20 at the Youngstown Club. Speakers were Dr. M. A. Blankenhorn, Dr. Leon Goldman, and Dr. Albert L. Brown, all faculty members of the School of Chemical Warfare conducted at the University of Cincinnati College of Medicine. Physicians from surrounding counties and local nurses were invited.—Bulletin.

STARK

Dr. Hans Popper, Chicago, talked about "The Present-Day Status of Vitamins" at the meeting of the Stark County Medical Society held at Brookside Country Club, Massillon, Sept. 9. Preceding the scientific session were an afternoon of golfing and a dinner at the country club.

Five papers discussing headache from points of view of the various specialists were presented at the meeting of the Stark County Medical Society held at the Canton Elks' Club, Oct. 9. Participants in the panel were: Dr. D. D. Shontz, Massillon, representing the internist; Dr. C. J. Streicher, Canton, representing the oculist; Dr. J. D. O'Brien, Canton, the neurologist; Dr. Blanchard Antes, Canton, the gynecologist; and Dr. M. T. Palen, Canton, the rhinologist.—Clair B. King, M.D., secretary.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

BELMONT

Members of the Belmont County Medical Society and their wives attended a farewell party given by the society's Auxiliary recently in honor of two members who were entering military service. Guests of honor at the affair, which was held at the home of Dr. and Mrs. R. H. Wilson, Martins Ferry, were Dr. Peter Lancione and Dr.

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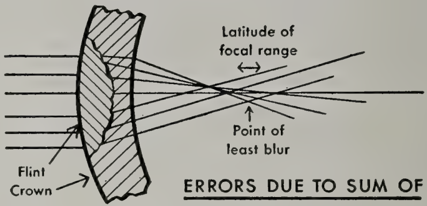

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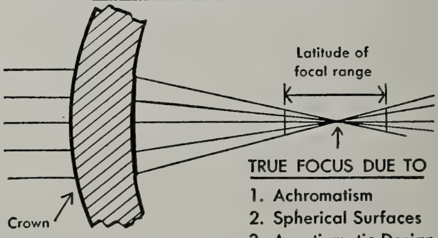

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E. E. McClelland, both of Bellaire.—News clipping.

COSHOCTON

Dr. John Mitchell, Columbus gave a talk on allergic dermatitis and allied conditions and showed colored slides on the subject at the regular meeting of the Coshocton County Medical Society, Oct. 13. Dr. Harold W. Lear, Coshocton, was elected secretary of the society.—W. F. Lyons, M.D., retiring secretary.

TUSCARAWAS

Ladies of the Auxiliary of the Tuscarawas County Medical Society knitted afghan squares at their recent meeting at the home of Dr. and Mrs. C. J. Miller, New Philadelphia.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MORGAN

At a called meeting of the Morgan County Medical Society held in McConnellsville Oct. 13, Dr. D. G. Ralston, McConnellsville, was named president and Dr. C. E. Northrup was elected secretary-treasurer. Dr. C. V. Davis, Pennsville, was named delegate to the Ohio State Medical Association.—C. E. Northrup, M.D., secretary.

WASHINGTON

A dinner meeting of the Auxiliary to the Washington County Medical Society was held Sept. 9 at the Betsey Mills Club, Marietta. Mrs. E. W. Hill, Jr., Marietta, was elected vice president to fill the unexpired term of Mrs. R. M. Meredith, Marietta, who has left the city.—News clipping.

Ninth District

(COUNCILOR: GILBERT R. MICKLETHWAITE, M.D., PORTSMOUTH)

SCIOTO

Mental health and morale in wartime were discussed by Dr. George T. Harding, Columbus, at a meeting of the Hempstead Academy of Medicine Sept. 14 at Portsmouth.—News clipping.

Tenth District

(COUNCILOR: GEORGE T. HARDING, III, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine, meeting at the Columbus Art Gallery, heard the following programs in October:

Oct. 5.—"Hypertension" by Dr. Harry Goldblatt, professor of experimental pathology at Western Reserve University School of Medicine.

Oct. 19.—"The Pharmacology and Therapeutic

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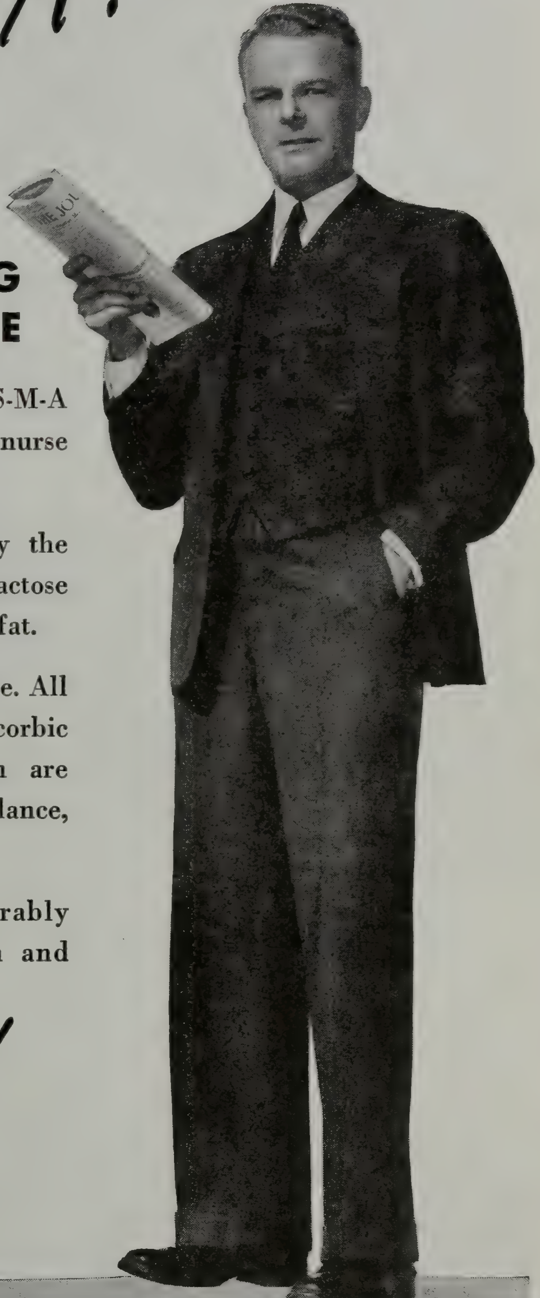

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Indications of Demarol" by Dr. Bruce K. Wiseman, Columbus.

The section on internal medicine of the Academy met Oct. 26 at St. Ann's Hospital to view a motion picture on "Appendicitis in Childhood," which was discussed later by the hospital staff.—Bulletin.

ROSS

Dr. James Warren, Columbus, discussed "Undulant Fever" at the opening fall meeting of the Ross County Academy of Medicine Sept. 3 at the Chillicothe Country Club.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

LORAIN

Dr. M. H. Li, Hawaiian physician who witnessed the attack on Pearl Harbor, addressed the Lorain County Medical Society at its regular meeting Oct. 13 at the Elks Restaurant, Elyria. A color motion picture of Hawaii was shown after his talk.—L. W. Trufant, M.D., secretary.

RICHLAND

A discussion of physiotherapy was presented by Dr. R. D. N. Brown, a newcomer to Mansfield, at the regular meeting of the Richland County Medical Society Oct. 15 at Mansfield General Hospital.—John F. McHugh, M.D., secretary.

Funds raised by means of a card party sponsored by the Auxiliary to the Richland County Medical Society have been used to purchase medical supplies for local Emergency Medical Service use and also for the purchase of an electric mixer, juicer, and chopper for the county tuberculosis sanitorium.—Mrs. Leopold Adams, correspondent.

WAYNE

First fall meeting of the Wayne County Medical Society was held Oct. 23 in the office of the County Health Commissioner, Wooster. Dr. John J. Sutter, health commissioner, addressed the members on various current medical and health problems.—R. C. Paul, M.D., secretary.

New Philadelphia—Dr. B. A. Marquand has been appointed health commissioner of Tuscarawas County, succeeding Dr. Kenneth E. Bennett, Strasburg, now a 1st Lieutenant in the Medical Corps of the Army Air Force.

Washington C.H.—Dr. James F. Wilson has resigned as Fayette County Health Commissioner, a post which he has held for 16 years. His resignation will become effective Nov. 15.

Wooster—Addressing the Orrville Rotary Club on his 50 years in the practice of medicine, Dr. R. C. Paul stressed the great advancement in chemotherapy and surgery.

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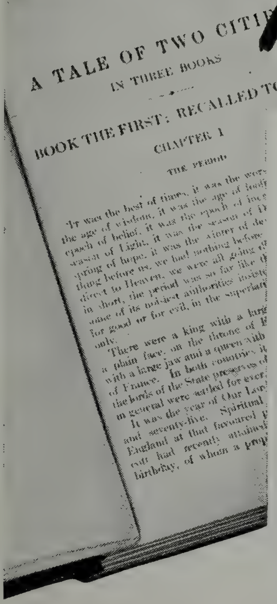
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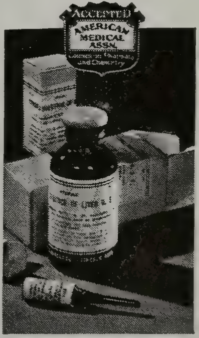

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Do You Know - - -

The executive committee of the Cuyahoga County Civilian Defense organization approved an appropriation of $220 a month to furnish a full-time worker and equipment in the office of the Cleveland Academy of Medicine, thus relieving the executive staff and the Academy budget of the burden of additional duties resulting from civilian defense activities.

* * *

Dr. Lewis F. Smead, Toledo, is the new President-Elect of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

* * *

Robert A. Brooks has been appointed executive secretary of the Kansas Medical Society, succeeding Clarence G. Munns, now a lieutenant in the United States Army.

* * *

Dr. and Mrs. James A. McClure, Columbus, recently celebrated their 62nd wedding anniversary. Dr. McClure, oldest active practitioner in Columbus, is 87 years old and has been practicing medicine for 61 years.

* * *

Ohio registrants in increasing numbers are failing to notify draft boards of changes in address and vital data affecting their status, according to a recent statement of Colonel C. W. Goble, State Selective Service Director. The greatest neglect he said, was among men of the fourth registration group—those from 45 to 65 years old. Registrants are required by law to notify their boards not only when they change addresses, but also whenever there is a change in their occupations, physical condition, or changes as to dependents. Severe penalties are provided for violations.

* * *

Among physicians who have recently opened new offices in Ohio are the following: Dr. James R. Glier, Camden; Dr. William E. DeVol, Marengo; Dr. John B. Kistler, Newcomerstown; Dr. Walter L. McKinney, Sidney.

* * *

The Caldwell Medal of the American Roentgen Ray Society was recently presented to Dr. Cornelius P. Rhoads, director of the Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York. The medal is presented for distinguished work in cancer research.

* * *

Medicine and public health head the list of purposes for which grants were made in 1940 to various fields by 134 American foundations, according to a recent report by Raymond Rich Associates, New York. Total funds appropriated for these purposes amounted to twelve and a quarter million dollars, or 30.4 per cent of the total grants. Grants to religious purposes were three per cent, whereas 50 years ago these topped the list.

* * *

Information concerning continuation courses for practicing physicians in various medical centers throughout the country was published in the October 17 issue of *The Journal of the American Medical Association*, pages 554-560. Prepared by the Council on Medical Education and Hospitals of the A.M.A., the list consists of courses beginning during the period Oct. 15, 1942 to Jan. 15, 1943.

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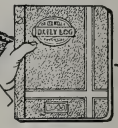

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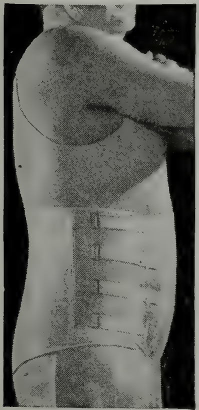

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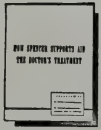
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New Edition of American Medical Directory Now In Circulation

Delayed by the necessity for changing data on physicians in military service, the 17th edition of the American Medical Directory was published recently by the American Medical Association. The directory, the largest to date, gives information about physicians in military service which was available at the time press forms were closed, designating them by appropriate insignia. Price of the directory is $18.00.

Medical Officers of the Reserve Corps of the United States Army and the Army of the United States, of the Navy and Naval Reserve, and of the National Guard on active duty are listed at their permanent home address but without indication of ranks. Medical Officers of the Regular Army, Navy, and U. S. Public Health Service are listed in the front section according to rank, as in previous editions, but, for military reasons, they are listed in the geographical section under Washington, D. C., instead of the stations to which they have been assigned.

The 1942 directory contains names of 201,272 physicians in the United States, Canada, Alaska, the Canal Zone, Hawaii, the Philippines, and Puerto Rico, and it embraces 2801 pages, or 126 more than in the previous edition. Since the 1940 volume was published, 15,223 names of recent graduates and physicians from abroad have been added, and more than 72,114 changes of address have been made.

Besides the geographic and alphabetical listings of physicians, the directory contains data regarding the officers and constitution and by-laws of the American Medical Association, histories of medical schools, medical libraries, journals, and the officers and members of special medical societies. It lists members of the National Board of Medical Examiners and officers of the examining boards in the various specialties as well as a list of approved internships, approved residencies and fellowships, and government positions for physicians. Under each state's section appear the medical practice laws of that state, information about its hospitals, and names of health officers, and state and county medical society officers.

Troy—Dr. Harry Wain, health commissioner of Sidney and Shelby County for the past four years, has been employed in a similar capacity by the combined health boards of Troy and Miami County.

Middletown—Dr. John C. Stratton has been named acting city health commissioner to serve for the duration of the war. He succeeds Dr. J. A. Carter, now on active duty as a Captain the Army of the United States.

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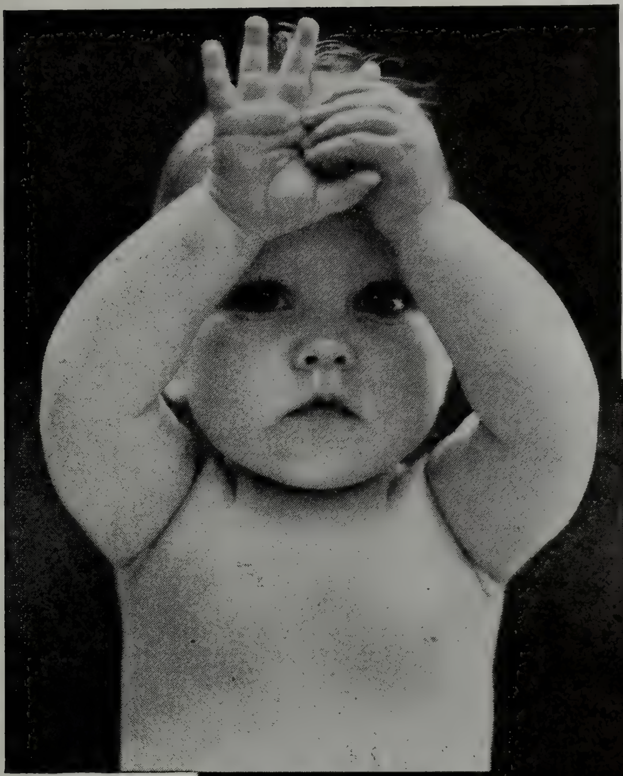

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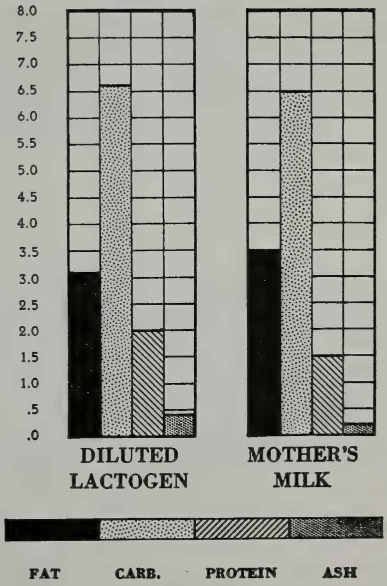

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> Clinical Pediatrics, p. 156.

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U.S. Supreme Court Has Agreed To Review A.M.A. Case

The Supreme Court of the United States has agreed to review the lower court decision which convicted the American Medical Association and the Medical Society of the District of Columbia of violation of federal anti-trust statutes, according to newspaper reports from Washington.

The two organizations appealed to the highest tribunal after their conviction by the Federal Court for the District of Columbia in May, 1941, at which time a number of individual physicians also indicted for the same charges were acquitted. The United States Court of Appeals heard the defendants' appeals in February, 1942, and later sustained the lower court's decision.

No date for the hearing by the Supreme Court was announced in press reports.

Coming Meetings

American Academy of Pediatrics, Chicago, Nov. 4-7.

American College of Physicians, Philadelphia, April 13-16, 1943.

American Society of Anesthetists, New York, Dec. 10.

Association of Military Surgeons of the United States, San Antonio, Texas, Nov. 5-7.

Fifth Annual Forum on Allergy, Cleveland, Jan. 9-10, 1943.

Radiological Society of North America, Chicago, Nov. 30-Dec. 4.

Southern Medical Association, Richmond, Nov. 10-12.

Southern Surgical Association, Savannah, Dec. 8-10.

Western Surgical Association, Memphis, Dec. 4-5.

Health Commissioners Hold Annual Session In Columbus

Opening with a round-table session on current local health problems, the 23rd Annual Conference of the Ohio Health Commissioners was held in Columbus at the Deshler-Wallick Hotel, Sept. 23 and 24. Dr. R. H. Markwith, State Director of Health, and Dr. J. J. Sutter, Wooster, president of the Ohio Federation of Public Health Officials, served as presiding officers.

At the second general session the health officers heard the following speakers and topics: "Planned Parenthood and the War," Dr. Claude C. Pierce, New York, medical director of the Planned Parenthood Federation of America; "A Program of Mental and Social Hygiene," Mrs. Bertha Ashby Hess, lecturer for the Ohio Department of Health; "The Follow-up and Control of Venereal Disease," Dr. Harold J. Gordon, venereal disease control officer for the Ohio Department of Health; "Premature Births in Ohio," Dr. Susan P. Souther, chief of the division of child hygiene in the state health department; "Nursing Care of the Premature Infant," Miss Elgie Wallinger, public health nursing consultant to the department; and "Distribution of Nursing Service in a War Emergency," Miss S. Gertrude Bush, chief of the department's nursing division.

At the third general session a bill proposing changes in the present state health laws was discussed.

Duncan Hines, author of "Adventures in Good Eating," addressed the final luncheon session on "Eating Places." Other speakers at this session were Lt. Col. William S. Keller, regional medical officers for the Office of Civilian Defense, and Col. F. V. Meriwether, liaison officer of the U. S. Public Health Service for the Fifth Service Command.

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Physicians who have recently completed their internships, or physicians, with experience, desiring to change locations are requested to file their names with the State Headquarters Office, Ohio State Medical Association, 1005 Hartman Theater Building, Columbus, Ohio.

Frequently, the Headquarters Office receives inquiries from physicians seeking assistants, partners, or men qualified for positions on private hospital staffs.

If physicians seeking new opportunities or desiring to change locations will file their names with that office, an effort will be made to furnish them with suggestions and at the same time render a service to members seeking assistants, etc.

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Former Officers Re-elected at Marion Meeting of Northwestern Society

Attracting physicians from throughout the Third and Fourth Councilor Districts, the 98th annual meeting of the Northwestern Ohio Medical Association was held in Marion Oct. 6. The program opened with a discussion of "Medical Aspects of Gas Warfare in Civilian Defense" by Dr. Charles A. Doan, professor of medicine, Ohio State University College of Medicine.

At a noon luncheon, Mr. William Hessler, Cincinnati, radio news analyst and foreign editor of the Cincinnati Enquirer; and Dr. Edward J. McCormick, Toledo, president of the Ohio State Medical Association, discussed "Democracy at War." Guests at this session included Mr. Charles S. Nelson, executive secretary, Ohio State Medical Association.

Speakers and their topics for the afternoon session were: Dr. Martin Diethelm, senior obstetrician at St. Vincent's and Lucas County Hospitals, Toledo, "Obstetrical Problems;" and Dr. William N. Taylor, professor of urological surgery, Ohio State University College of Medicine, "Urology in Relation to General Practice."

The following officers were all elected to succeed themselves: Dr. B. F. Mowery, Findlay, president; Dr. C. L. McKibben, Toledo, vice president; Dr. John Leahy, Tiffin, treasurer, and Dr. W. B. Recker, Leipsic, secretary.

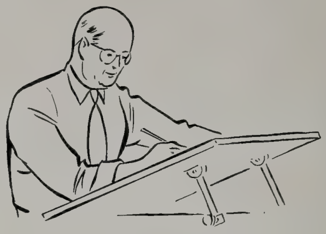
Lady guests of the physicians were entertained by the Auxiliary to the Marion Academy of Medicine during the sessions of the meeting.

Rehabilitation Program for Disabled Service Men Is Advocated

President Roosevelt in a recent message to Congress urged the enactment of legislation which would create a federal agency for the rehabilitation through vocational training of physically handicapped civilians and service men, according to newspaper reports from Washington.

The President contended that advances in medical science will mean that a larger percentage of the casualties in the current war will survive their injuries and that therefore the great numbers of crippled persons must be trained for some useful occupation instead of becoming social liabilities, press dispatches said.

Although details of how the new agency would operate were not in the President's message it indicated that the agency should be set up under the Federal Security Administration and that it should provide for persons now handicapped, for those disabled while members of the armed services, and for an increasing number of accident cases.



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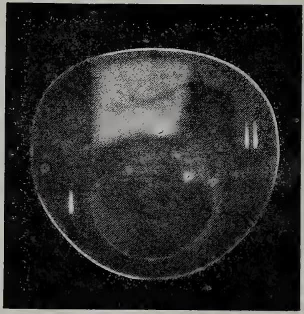

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** Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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The Physician's Bookshelf

The War and the Doctor, Essays on the Treatment of War Wounds, Edited by J. M. McIntosh, M.D. ($2.00, *Williams and Wilkins Company, Baltimore.)* The essays in this book are based on a series of lectures delivered on request of Edinboro Branch of the British Medical Asociation that form an intensive course in the modern aspects of war surgery.

Your Health and Safety by Jessie Williams Clemensen and William Ralph LaPorte ($1.96, *Harcourt, Brace and Company, New York)* is a textbook for students whose goal is better living for students right now. It does a swell job of driving home the point that bad health is not inevitable.

Chemistry in Health and Disease by Harry C. Biddle, M.A., *(Second Edition. F. A. Davis Company, Philadelphia, Pa.)* is written by one of the staff at the Western Reserve University and makes an excellent presentation of the facts for the student nurse. It's not such a bad book for some of us older men to use for review.

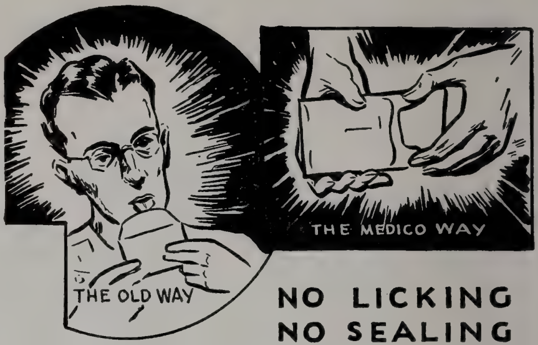
Synopsis of Pathology by W. A. D. Anderson, M.D. ($6.00, *Mosby, St. Louis)* presents pathology in a compact form primarily for the medical student, but should prove helpful to any clinician who finds it necessary to review the subject.

Food in Health and Disease, Preparation, Physiological Action, and Therapeutic Value, by Katherine Mitchell, B.A. *(F. A. Davis Company, Philadelphia)* is based upon the author's lectures at Michael Reese Hospital. Is an excellent, simple presentation of the application of the laws of nutrition and the requirements of the human body for food.

Big Doc's Girl by Mary Medearis ($2.00 *Lippincott & Co., Philadelphia, Pa.)* is a story of the country doc, little doc and his sister, and of the quiet, primitive country in the back reaches of Arkansas and the people who live there. Is an excellent story well told.

Standard Nomenclature of Disease and Standard Nomenclature of Operations, Edited by Edwin P. Jordan, M.D. ($4.00, *American Medical Assn., Chicago, Ill.)* is a thumb-indexed volume of 1,022 pages and is the official text that is to be used for indexing and classification of hospitals and diseases.

Central Automatic Regulations in Health and Disease, With Special Reference to the Hypothalamus by Heymen R. Miller, M.D. ($5.50, *Grune & Stratton, Inc.,* 443 *Fourth Avenue, New York City),* presents the subject in a most welcome manner. The author's emphasis throughout the book upon the part played by the cerebral



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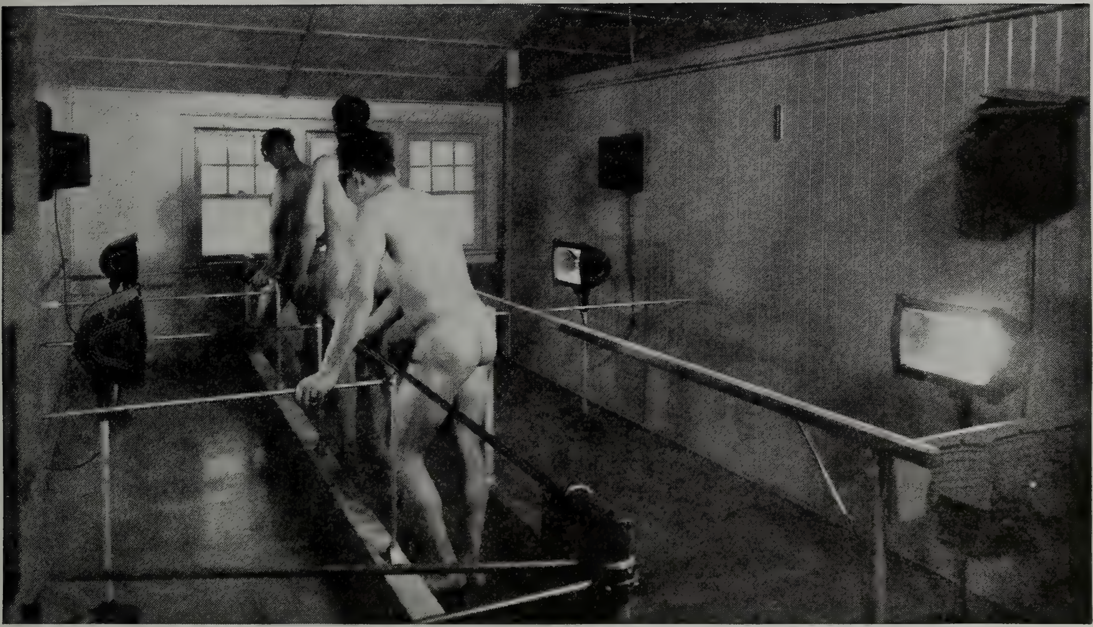

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cortex in bringing about the more delicate autonomic adjustments is most stimulating. Every physician should read his discussion of the influence of the autonomic system on water metabolism and other metabolic processes. We can now proceed from human calorimetry to the study of intermediary metabolism and the autonomic factors that control it. The book is written from the viewpoint of the need of the clinician and should be read more than once by everyone who practices medicine.

Stedman's Practical Medical Dictionary by Stanley Thomas Garber, M.D. *(with thumb index, $7.50, 15th Revised Edition, Williams & Wilkins, Baltimore, Maryland)* is more than an ordinary revision. The whole book has been reset with new type, chosen for its legibility and clearness after being tested by modification of Chapman-Cook speed of reading test. Dr. Garber of Cincinnati joined Dr. Stedman as collaborator on the 14th Edition. As the editor of this edition he maintains the previous traditions while thoroughly modernizing this indispensable book.

Physical Diagnosis by F. Dennette Adams, M.D., ($5.00, *13th Edition, Williams & Wilkins, Baltimore, Maryland)* represents a complete and enlarged edition of the famous physical diagnosis by the late Richard C. Cabot. The book has now grown to 888 pages and represents not only the experience of Drs. Cabot and Adams but pretty much all of their colleagues at the Massachusetts General as well as of many of their other friends who are authorities in limited fields. It should at once take its place as the outstanding book upon the subject.

Sex Fulfillment in Marriage by Ernest R. Groves, Gladys Hoagland Groves, and Catherine Groves ($3.00, *Emerson Books, Inc., New York City)* is by this well known family of experts in the field of sociology with special reference to marriage and the family, and is a crystallization of modern thinking on the subject written with "tact, spontaneity and good taste".

The Science of Health by Florence L. Meredith, M.D. ($2.50, *P. Blakiston's Son and Company, Philadelphia)* is second edition of "Twelve Hours of Hygiene". It is an excellent one-hour-one-semester-text emphasizing that the American people are the healthiest people in the world and that the present generation is the healthiest in the nation's history.

Physiological Hygiene by C. B. Hickman ($3.25, *Prentice Hall, Inc., New York City)* is a revised edition bringing the first edition up to date. Is characterized by an attempt to ground students of hygiene in the anatomy and physiology of their own bodies. It is brought quite up to date. especially in nutrition and dental hygiene.

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The Ohio State Medical Journal

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JONATHAN FORMAN, M.D., *Editor*

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Sulfonamides in the Treatment of Ocular Infections

ALSON E. BRALEY, M.D.

SULFONAMIDES have been used extensively since Domagk[1] first found that an azo-dye compound had a curative effect on experimental streptococcus infections. These drugs have revolutionized therapy in ophthalmology, as they have in general medicine. Lian[2] in 1938 was the first to use sulfanilamide successfully in the treatment of trachoma. Leo[3] of the U. S. Indian Service in 1938 then reported the amazing results of sulfanilamide in the treatment of trachoma among the American Indians. These were followed by numerous reports[4,5,6] of the pronounced curative effect of sulfanilamide in acute trachoma, but, while old trachoma was improved, it was not definitely cured. In 1939 Thygeson[7] reported two cases of inclusion conjunctivitis successfully treated with sulfanilamide.

Guyton[8] in 1939 and later Guyton and Woods[9] in 1940 summarized the use of sulfonamides in the treatment of many types of ocular diseases. From their reports peroral sulfonamides were valuable in the treatment of gonorrhea conjunctivitis, trachoma, inclusion conjunctivitis and some hemolytic streptococcus infections. While many glowing reports on the use of sulfonamides in ocular infections have appeared in the current literature, some have been conflicting.

The purpose of this study is to summarize and evaluate the results of sulfonamide therapy in ocular infections, to determine the most efficient drug, the best means of application of the drug and enumerate the diseases in which sulfonamides are most likely to succeed.

The Author

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TYPES OF DRUGS EMPLOYED

Sulfanilamide has been used most frequently perorally, while sulfapyridine, sulfathiazole, sulfadiazine and their sodium salts are employed perorally, as a powder, or in 5 per cent ointment. Sodium-sulfathiazole and sulfadiazine are the drugs of choice at the present time for local application or peroral therapy.

METHODS OF ADMINISTRATION

Sulfanilamide is given by mouth in a variety of dosages. In trachoma and inclusion conjunctivitis the dosage is usually one-third of a gram per pound of body weight for a period of two weeks in trachoma, while in inclusion conjunctivitis a much shorter time.

In administering sulfanilamide for other types of ocular infections, a sufficient amount of the drug is given to maintain a blood level of between 4 and 10 mg. per cent. A single large initial dose may be given, followed by smaller divided doses.

Sulfapyridine is most commonly used per-

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orally in dosages to maintain the blood level at from 4 to 9 mg. per cent. Sodium-sulfathiazole and sulfathiazole are used in a 5 per cent lanolin-petrolin base ointment, as well as in solution for iontophoresis, and as a dusting powder. Sulfadiazine and its sodium salt are used in a 5 per cent ointment, in solution for iontophoresis and also given perorally. Frequently the drugs are used in combination by two or more routes of administration.

TOXICITIES AND SENSITIVITIES

The toxic reaction to the various sulfonamide drugs by the peroral route were tabulated on 200 cases with each of the four drugs (See Table No. 1). Sulfapyridine gave the most pronounced toxic reactions, while sulfanilamide and sulfathiazole were next in order of toxicity, and sulfadiazine appeared to be the least toxic. The renal toxicities appear to be the most serious, and hematuria and oliguria should be considered as a serious toxic reaction.

TABLE 1

TOXIC REACTIONS TO SULFONAMIDE DRUGS

(Presbyterian Hospital Incidence)

	Sulfanilamide (200 Cases)	Sulfapyridine (200 Cases)	Sulfathiazole (200 Cases)	Sulfadiazine (200 Cases)
Nausea	36.	60.	34.	2.
Vomiting	11.	52.	22.	1.5
Crystals	0.	4.5	17.	10.
Hematuria	0.	5.	1.5	1.
Dermatitis	2.	2.	8.5	3.
Fever	14.	3.	8.5	1.5
Anemia	7.5	3.5	2.5	0.
Leukopenia	0.5	0.5	0.5	0.
Psychosis	4.	4.5	0.	0.5
Cyanosis	48.	8.0	0.	0.

Several local sensitivities have been encountered to the use of sulfathiazole ointment. When such sensitivities are encountered, it has been possible to use another drug without a carryover sensitivity. Rarely is a sensitivity to the ointment base found, in which instance the drug may be used either in powder form or in another ointment base.

OCULAR INFECTIONS RESPONDING TO PERORAL SULFONAMIDES ARE SUMMARIZED IN TABLE NO. 2

Sulfanilamide has been used in the treatment of trachoma and inclusion conjunctivitis. These are typical virus infections of the eye, and respond well to peroral administration. Inclusion conjunctivitis is treated by local installation of a 5 per cent sulfathiazole ointment or a powder. Although inclusion conjunctivitis responds well to peroral treatment, the local therapy is preferable for obvious reasons.

Lymphogranuloma venereum, a virus disease which rarely attacks the eye, also responds well to peroral sulfonamides.

The use of sulfonamides in the treatment of gonococcus infections is well known. The recovery of gonococcus conjunctivitis due to the use of sulfonamide drugs is miraculous. The use of sulfonamides in gonococcus iridocyclitis is successful following prolonged use of the drugs.

Hemolytic streptococcus infections of the eye have been extremely troublesome, especially the pseudomembranous types. In this type of conjunctivitis, a combination of peroral and local therapy is preferred.

Corneal ulcers due to the hemolytic streptococcus have responded best to peroral administration of sulfanilamide. Endophthalmitis and orbital cellulitis due to the hemolytic streptococcus have responded well to sulfonamides perorally.

Most of the staphylococcic infections of the eye respond favorably to local therapy. However, in dacryocystitis, endophthalmitis and orbital cellulitis, the peroral route of administration of either sulfathiazole or sulfadiazine is preferable.

The pneumococcic infections of the eye, of which conjunctivitis is the most common, may respond to local therapy. However, pneumococcic corneal ulcers require vigorous local as well as general peroral administration.

In the treatment of pneumococcic ulcers sulfathiazole or sulfadiazine powder is dusted into the eye at frequent intervals, and the blood level of sulfonamides is maintained. The use of sulfonamides by iontophoresis every other day is advantageous. Dacryocystitis, endophthalmitis, and orbital cellulitis produced by the pneumococcus respond well to peroral administration of sulfadiazine or sulfapyridine.

B. pyocyaneus infections of the eye have been

TABLE 2

Ocular Infections Which Should Respond Well to Sulfonamide Therapy

Virus Infections
- Trachoma
- Inclusion conjunctivitis*
- Lymphogranuloma venereum

Hemolytic streptococcus infections
- Conjunctivitis**
- Corneal ulcers
- Endophthalmitis
- Orbital cellulitis
- Impetigo*

Staphylococcus infections
- Dacryocystitis
- Conjunctivitis*
- Ulcers*
- Endophthalmitis
- Blepharitis*
- Orbital cellulitis
- Impetigo*

Pneumococcus infections
- Dacryocystitis
- Conjunctivitis*
- Ulcers**
- Endophthalmitis
- Orbital cellulitis

Gonococcus infections
- Conjunctivitis
- Iridocyclitis

Pyocyaneus infections
- Ulcers

Proteus infections
- Conjunctivitis*

Coliform group infections
- Conjunctivitis*

H. influenzae infections
- Conjunctivitis*
- Orbital cellulitis

Friedländer bacillus infections
- Ulcers**
- Dacryocystitis

Meningococcus infections
- Endophthalmitis
- Conjunctivitis

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*Local therapy preferred.

**Combined oral and local therapy preferred.

treated successfully with sulfapyridine by Lepard[10] and others. Sulfadiazine was successful in one case. However, from some recent studies it would appear that corneal ulcers due to B. pyocyaneus responded well to local therapy and iontophoresis (Sallmann[11]). The successful treatment of B. pyocyaneus ulcers of the cornea with sulfonamides is an important advance in industrial ophthalmology.

Although infections due to B. proteus and the coliform bacteria are not common in the eye, they respond well to peroral sulfonamide therapy. However, many of the infections produced by these organisms should be given a trial with local ointment or powder.

H. influenza infections of the conjunctiva are common, producing a picture similar to the usual "pink eye". They respond to the sulfonamides when given perorally; however, the local application of sulfonamide ointments is preferable. Occasionally orbital cellulitis is caused by H. influenza. This responds to peroral sulfonamides.

Corneal ulcers produced by Friedländer's bacillus respond slowly to peroral sulfonamides. Their response is much more rapid if combined with local therapy. When the lacrimal sac becomes infected with Friedländer's bacillus, the infection responds satisfactorily to sulfonamides perorally.

OCULAR INFECTIONS BEST TREATED BY LOCAL THERAPY

(Summarized in Table No. 3)

Many of the various types of conjunctivitis, while they respond satisfactorily to peroral sulfonamides, are not severe enough to warrant the risk of toxic reaction. Local therapy is of value in many of these instances. The use of a 5 per cent sulfathiazole or sodium sulfathiazole ointment in the conjunctival sac has a pronounced effect on most acute purulent conjunctivitises. The concentration of the drug must be maintained at a relatively high level in order to produce satisfactory results. Therefore, it is essential to apply the ointment at least every four hours.

TABLE 3

INDICATIONS FOR LOCAL SULFONAMIDE THERAPY

(Ointment, Powder and Solution—Iontophoresis)

Catarrhal Conjunctivitis
- Strep. hemolyticus
- D. pneumoniae
- H. influenzae
- Strep. viridans
- Diplobacillus

Infectious Eczema
- Staph. aureus

Central Ulcers
- Strep. hemolyticus*
- K. pneumoniae* (Friedländer)
- Ps. pyocyanea*
- D. pneumoniae*

Marginal Corneal Ulcers
- Strep. hemolyticus
- Diplobacillus (Morax Axenfeld)

Blepharitis
- Staph. aureus

Impetigo
- Staph. aureus
- Strep. hemolyticus

Inclusion Conjunctivitis
- Infant
- Adult†

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*Powder or Iontophoresis plus oral therapy preferred.
†Supplementary oral therapy often necessary.

Acute catarrhal conjunctivitis produced by the pneumococcus, H. influenza and the Morax-Axenfeld bacillus usually respond quickly to sulfonamide ointments.

The troublesome blepharitis squamosa and ulcerosa and the associated conjunctivitis produced by staphylococcus aureus are frequently controlled by adequate local therapy. The sulfonamide ointment must be applied to the lid border as well as in the conjunctiva. After treatment has been discontinued, they may recur, but the periods of acute exacerbations are usually satisfactorily prolonged.

The impetigo produced by either the staphylococcus aureus or streptococcus hemolyticus is frequently cured by local sulfonamide ointments. When the infection does not respond to local therapy alone, it may be advisable to use supplementary oral therapy.

Inclusion conjunctivitis in the infant has shown a satisfactory response to sulfathiazole ointment; however, in the adult the time is prolonged and it has been found necessary to resort to peroral therapy.

Most of the corneal ulcers have not responded satisfactorily to the use of local ointment. Many of these, especially the marginal corneal ulcers, improved on the use of sulfonamide powder dusted into the conjunctiva sac. The powder remains in the eye for a considerable length of time and has a tendency to adhere to the ulcer crater. When the response to local sulfonamide powder is not satisfactory, the combining of oral therapy with iontophoresis in building up the concentration of the drug in the cornea and anterior chamber may be advisable.

Administration of local sulfonamides by iontophoresis alone or combined with local ointment or powder is especially efficacious in central corneal ulcers due to the pneumococcus, B. pyocyaneus, Friedländer's bacillus, and hemolytic streptococcus. Sulfapyridine, sulfadiazine and sulfathiazole seem to give better results than sulfanilamide. Iontophoresis should be supplemented by either local powder or ointment.

OCULAR INFECTIONS IN WHICH SULFONAMIDES MAY BE OF VALUE

(Summary, Table No. 4)

Endophthalmitis following intra-ocular foreign bodies or injury may be produced by Clostridium welchii or one of the gas forming organisms. These should respond satisfactorily to either sulfadiazine or sulfapyridine. Since the infection is in the vitreous cavity, it is difficult to build up a very high concentration of the sulfonamides at the site of the infection. It has been shown that the concentration of the drugs is very low in the vitreous even when the blood level is relatively high. In many of the infections in the vitreous, it may be necessary to supplement the peroral administration of the drug by the use of local powder or iontophoresis.

In vitro tests have shown that certain of the sulfonamide drugs have a marked bacteriostatic effect on various organisms. These in vitro tests may be of advantage in choosing the type of sulfonamide for the treatment of the particular strain of organism giving rise to the intraocular infection. From the reports in the literature the in vitro tests for the particular strain of organism follows closely the in vivo action of the drugs.

TABLE 4

Ocular Infection in Which Peroral Administration of Sulfonamides May Be of Value and Deserve a Trial

Actinomyces bovis:
actinomycosis

Clostridium welchii:
endophthalmitis

Hemophilus ducreyii
soft chancre of lid or conjunctiva

Streptococcus viridans:
conjunctivitis
endophthalmitis

K. pneumoniae (Friedländer)
ulcers

Brucella melitensis—abortus—suis
keratitis
uveitis
choroiditis

Erythema multiforme:

(etiology unknown)
conjunctivitis
keratitis

Moraxella lacunata (Diplobacillus of Morax-Axenfield)
conjunctivitis*
marginal ulcers*

Moraxella duplex (Diplobacillus of Petit)
central ulcers

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*Local therapy more important.

There are certain exceptions, however, such as in a marked streptococcic pseudomembranous conjunctivitis, in which there are large quantities of fibrin and narcotic debris present, the sulfonamides not being present in high enough concentrations at the site of the organism to have a bacteriostatic effect.

In the Brucella infections of the eye, especially uveitis, it certainly should be advantageous to use sulfathiazole or sulfadiazine perorally.

OCULAR INFECTIONS IN WHICH SULFONAMIDE THERAPY PROBABLY IS OF NO VALUE

Summary, Table No. 5

The typical virus diseases, of which herpes simplex and herpes zoster are examples, have not responded satisfactorily to any method of administration of the sulfonamide drugs. Sulfonamides have been used in variola and vaccinia, molluscum contagiosum, measles and similar infections, without effect. The infections of the eye produced by the non-hemolytic streptococcus have responded poorly.

TABLE 5

Ocular Infections in Which Sulfonamide Therapy Probably Is of No Value

Non-hemolytic streptococcus infections:
orbital cellulitis
endophthalmitis
corneal ulcers

Tuberculosis:
uveitis
conjunctivitis
keratitis

Tularemia
Leptotrichos conjunctivae (Parinaud's conjunctivitis)

Ocular pemphigus

Typical virus infections:
herpes corneae (dendritic keratitis)
herpes zoster
variola
vaccinia
measles, etc.

Uveitis (idiopathic)

Sympathetic ophthalmia

Sulfonamide drugs have been tried in tuberculosis, tularemia, ocular pemphigus, sympathetic ophthalmia, idiopathic uveitis and Parinaud's conjunctivitis, without beneficial effect.

RESULTS OF THERAPY IN PERORAL SULFONAMIDES IN 153 OCULAR INFECTIONS

Summary, Table No. 6

In the treatment of 82 cases of conjunctivitis, 54 were clinically cured and 16 were markedly improved. Of the 52 cases of trachoma treated with sulfanilamide, 31 were clinically cured, 15 showed marked improvement and six showed no improvement. One case of trachoma was treated with sulfathiazole with a resultant cure; however, one case treated with neoprontosil showed no improvement.

Inclusion conjunctivitis treated with sulfanilamide and neoprontosil were clinically cured. Three cases of gonococcic conjunctivitis were treated, one with sulfanilamide and two with sulfathiazole, all were clinically cured. Sulfanilamide was also used successfully in each on one case of influenza and conjunctivitis, pneumococcus conjunctivitis and porteus vulgaris conjunctivitis. Sulfathiazole was used successfully in one case of hemolytic streptococcus conjunctivitis and sulfanilamide was unsuccessful in another.

Sulfanilamide was unsuccessful in Parinaud's conjunctivitis and in acute and chronic pemhigus.

In the treatment of 27 cases of corneal ulcerations with sulfonamides nine were clinically cured, eleven improved and seven showed no improvement. Sulfapyridine was used in three cases of pneumococcus ulcers of the cornea, two of which were clinically cured and one improved; while one case treated with sulfanilamide showed on improvement. One case of streptococcus hemolyticus was successfully treated with sulfanilamide.

In the treatment of corneal ulceration produced by the staphylococcus aureus, the peroral method of treatment was not entirely satisfactory. Sulfanilamide had little or no effect, while in two cases treated with sulfapyridine one was clinically cured and the other improved. Two cases treated with sulfathiazole were improved but not cured. Sulfadiazine was used in three cases, one of which was cured and two unimproved. It was found necessary to supplement the peroral administration of sulfadiazine by local therapy for this type of corneal ulceration.

Although two cases of dendritic keratitis were improved on sulfanilamide, the effect was not pronounced and it was felt that the sulfanilamide had little or no effect. Sulfadiazine was used in one case of herpes of the cornea with no effect. One case of pyocyaneus infection of the cornea was treated with sulfadiazine, with improvement.

In the treatment of various types of keratitis, little improvement was obtained in six cases. One case was successfully treated with sulfathiazole, but the etiology was unknown. No improvement was obtained in herpes zoster keratitis, mollus-

TABLE 6

Results Obtained in Oral Sulfonamide Treatment of 153 Ocular Infections

Infection	No. of Cases	Drug	Clinical Cure	Pronounced Improvement	Slight, Temporary, or no Improvement
Blepharitis:					
Staph. aureus	2	sulfanilamide			2
	3	sulfathiazole		3	
	1	sulfadiazine			1
Streptothrix concretious	1	sulfanilamide		1	
	1	sulfathiazole		1	
Dacryocystitis (acute):					
D. pneumoniae	1	sulfathiazole	1		
Strep. hem.	1	sulfanilamide		1	
Staph. aureus	1	sulfathiazole	1		
Conjunctivitis:					
Trachoma	1	neoprontosil			1
	52	sulfanilamide	31	15	6
	1	sulfathiazole	1		
Inclusion conj.	1	neoprontosil	1		
	14	sulfanilamide	14		
Parinaud's conj. (leptotrichosis)	1	sulfanilamide			1
H. influenzae conj.	1	sulfanilamide	1		
Strep. hem. conj.	1	sulfanilamide			1
	1	sulfathiazole	1		
D. pneumoniae conj.	1	sulfanilamide	1		
Gonococcic conj.	1	sulfanilamide	1		
	2	sulfathiazole	2		
Chronic pemphigus	1	neoprontosil			1
Acute pemphigus	1	sulfanilamide			1
Proteus vulgaris	1	sulfathiazole	1+		
Etiology unknown	1	sulfapyridine			1
	1	sulfathiazole		1+	
General ulceration:					
Herpes corneae	2	sulfanilamide		2	
	1	sulfadiazine			1
Mooren's ulcer	2	sulfanilamide			2
Staph. aureus	1	sulfanilamide			1
	2	sulfapyridine	1	1	
	2	sulfathiazole		2	
	3	sulfadiazine	1		2
D. pneumoniae	3	sulfapyridine	2	1	
	1	sulfanilamide			1
Strep. hem.	1	sulfanilamide	1		
K. pneumonia (Friedländer)	1	sulfadiazine	1		
Ps. pyocyanea	1	sulfadiazine		1	
Etiology unknown	4	sulfathiazole	1	3	
	2	sulfanilamide	1	1	
	1	sulfadiazine	1		
Endophthalmitis:					
Strep. hem.	1	sulfanilamide			1
Staph. aureus	2	sulfapyridine	1	1	
	3	sulfathiazole	1	1	1
	2	sulfadiazine	2		
Ps. pyocyanea	1	sulfathiazole			1
D. pneumoniae	1	sulfanilamide & sulfamethylthiazole			1
Etiology unknown	2	sulfanilamide			2
	3	sulfathiazole		1	2
Keratitis:					
Herpes zoster	1	sulfanilamide			1
Mollusc. contag.	1	sulfanilamide			1
Etiology unknown	2	sulfathiazole	1		1
	1	sulfanilamide			1
Epidemio kerato-conjunctivitis	1	sulfadiazine			1
Uveitis:					
Idiopathis	2	sulfanilamide			2
	2	sulfathiazole		1	1
	3	sulfadiazine			3
Syphilitic (?)	1	sulfanilamide			1
Gonococcic (?)	1	sulfadiazine		1	
Sympathetic ophthalmia	1	sulfadiazine			1
	1	sulfathiazole			1

cum contagiosum or epidemic kerato-conjunctivitis with sulfonamides.

In the treatment of blepharitis, sulfanilamide was used in two instances without improvement. Sulfathiazole perorally improved three cases of blepharitis, while sulfadiazine was unsuccessful. In the treatment of blepharitis, the local concentration of the drug by the peroral route is not sufficient for bacteriostatic effect, and more improvement can be obtained by supplementary local therapy.

Two cases of Streptothrix concretious in the canaliculi were improved with sulfonamide therapy. The conjunctivitis improved, but much better results are obtained by expressing the concretions. Acute dacryocystitis has been treated successfully with sulfathiazole and improved with sulfanilamide. The bacteria present in one case were the pneumococcus, another staphylococcus aureus and another streptococcus hemolyticus.

In the treatment of infections within the eyeball, nine cases of uveitis and two of sympathetic ophthalmia were treated. Two cases of uveitis were improved, but seven were unimproved. The sympathetic ophthalmia was not cured by either sulfadiazine or sulfathiazole. From the results obtained, no improvement in any form of uveitis was expected, with the possible exception of so called gonorrheal iridocylitis.

SUMMARY

1. Peroral sulfonamides are of the greatest value in the treatment of gonococcus infections, trachoma, inclusion conjunctivitis, lymphogranuloma venereum, influenza conjunctivitis, and hemolytic streptococcus infections.

2. Peroral sulfonamides are of some value in the treatment of staphylococcus infections, pneumococcus infections, pyocyaneus ulcers, and some types of hemolytic streptococcus infections.

3. Peroral sulfonamides combined with local sulfonamides are of value in the treatment of hemolytic streptococcus, pseudomembranous conjunctivitis, severe staphylococcus infections, pneumococcus ulcers, B. pyocyaneus ulcers, and Friedlander's bacillus ulceration of the cornea.

4. Local sulfonamides are of value in the treatment of staphyloccus conjunctivitis, blepharitis, impetigo and ulcers. They are also of value in the treatment of pneumococcus conjunctivitis, influenza conjunctivitis, and inclusion conjunctivitis in infants.

5. Sulfonamides apparently have no value in the treatment on nonhemolytic streptococcus infections, tuberculosis, tularemia, Parinaud's conjunctivitis, ocular pemphigus, idiopathic uveitis, sympathetic ophthalmia, and typical virus infections, such as dendritic keratitis, herpes zoster, etc.

6. The results of peroral sulfonamide treatment of 153 ocular infections are tabulated.

7. The toxic reactions to sulfonamide drugs are summarized with 200 cases of each of four drugs.

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Economy in Vitamin Medication

So called vitamin B complex capsules range in price to the patient from five to seven cents per capsule and the liquid preparations from $1.50 to $2.50 per pint. Most of these liquids, but not all, contain a wine base and 6 to 10 mg. of thiamin chlorine per ounce, giving a daily dose of 3 to 5 mg. of thiamin. In addition to this, most contain B_6 and pantothenic acid in small amounts, which increase the cost and probably benefit the manufacturer more than the patient. The price of the capsules is increased also by the addition of pantothenic acid and B_6 in small amounts. The 1 mg. of thiamin and 5 Gm. of nicotinic acid present in such capsules could much better be supplied, when necessary, in brewers' yeast at 50c a pound and nicotinic acid tablets in pure form for a little over a half cent each.

Alpha tocopherol or vitamin E has been very disappointing in the treatment of muscular atrophy and allied states, and no known deficiency in the human being has ever been satisfactorily demonstrated. However, vitamin capsules are available at $7.50 per one hundred.

Practically, the treatment of mild vitamin deficiencies is simple and may be described in a few words: A well balanced diet. The patient should be urged to eat a variety of meats, green and yellow vegetables, milk, eggs, and fruits. When specific and recognizable deficiencies are found, vitamin therapy is indicated for a short while, but should always supplement the dietary treatment, never replace it.—Joseph B. Stevens, M.D., Greensboro; N. Carolina M. Jour., Vol. 3, No. 10, October, 1942.

Drainage In Appendicitis

From the Cleveland Appendicitis Survey

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The figures of the Cleveland Appendicitis Survey show very clearly that (1) intra-abdominal drainage should never be used in cases of simple acute appendicitis, and (2) that it is a method of choice to avoid such drainage if possible in cases in which the appendix has ruptured and peritonitis developed.

HISTORICAL NOTE

In 1939 the Academy of Medicine of Cleveland authorized the formation of the Appendicitis Survey Committee. In the past three years the group has studied all the cases of acute simple appendicitis, appendicitis with peritonitis and appendicitis with abscess which have undergone operation in the sixteen largest hospitals of Cuyahoga County. These hospitals contain nearly all the general purpose beds in metropolitan Cleveland. Diagnoses are based on pathological reports and no attempt has been made to include so-called "chronic appendicitis." A large committee has done the work* and has covered the period of 12 years from January 1, 1930 to January 1, 1942.

From this period we collected 19,401 cases and studied them from many angles. A brief report of the whole work is to be published soon.[1]

This investigation of the drainage problem is one segment of the work. We wish to report our findings and comment thereon.

TWELVE YEAR SUMMARY

Simple Appendicitis—Striking figures are obtained in the twelve-year results which include all cases at all the hospitals.

In that time there were 12,138 cases of acute appendicitis (uncomplicated) in which no drainage was used. Only 68 died, less than 0.6 per cent. During that period, 2301 simple acute cases were drained and of these 63 died, a mortality of 2.7 per cent. Thus in the whole series, drainage cases died more than four times as often as non-drainage cases.

Some surgeons say that they feel safer if they use drainage in a case of ordinary acute appendicitis. Actually such a statement means exactly the opposite. Both patient and surgeon are in much greater danger than if drains were left out.

Appendicitis with Peritonitis—This is another matter as we have stated before.[1] Certainly many patients with peritonitis must have drainage but there is actually less need to drain many peritonitis cases especially since the use of the sulfonamides. Later there are figures showing the marked decrease of drainage in this condition in the past year. However our twelve-year figures deserve consideration.

In that time 2826 peritonitis patients were operated on and drained and 555 died. The mortality was 19.8 per cent. In the same period 375 cases were closed without drainage. Only 41 died with a death rate of 10.9 per cent.

Obviously, the worst cases were drained and best were not drained. But if conditions are favorable, the avoidance of drainage gives the patient a decidedly better chance of survival.

THE DECREASING TREND OF DRAINAGE

There has been a very pleasing diminution in the number of cases drained over the past twelve years.

Simple Appendicitis—We were almost amazed at the end of this study to note that in 1930, 29.8 per cent of patients with ordinary acute appendicitis received drainage. That is nearly one in three. There has been an almost steady decrease of the practice until in 1941, 105 of 1504 cases, only 7 per cent, were drained. We should like to see the last figure rapidly reach zero.

Appendicitis with Peritonitis — Likewise there has been an almost steady lessening of drainage figures in peritonitis. In 1930, 94.9 per cent of these patients were drained. This percentage came down slowly to 84.7 in 1940. With the use of sulfonamides in 1941 only 76.1 per cent had drains inserted.

This means that at present three out of four peritonitis patients are drained instead of nineteen out of twenty as of twelve years ago.

DECREASING MORTALITY

We have found a splendid decrease in appendicitis mortality in the past twelve years. Obviously, all of it is not due to the declining use of drainage but we feel sure that this is a major factor.

The figures given below apply to all our cases, acute, peritonitis and abscess. However, the death rate from abscess is nearly static therefore the fine decline is due to improvement in treatment of acute simple and peritonitis cases.

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*The Committee consists of Drs. D. C. Darrah, R. M. Hosler, H. H. Pevaroff, J. D. Brett, J. H. Lazzari, C. W. Rotter, S. J. Restifo, H. R. Hathaway, W. A. Boukalik, John Kelker, John Renshaw, A. F. Sydow, B. B. Larsen, J. M. Rossen, John Budd, S. L. Feldman, R. J. McNamee, P. L. Suhay, George Crile, Jr., Fred Kelly, and R. M. Watkins, Chairman.

1. Appendicitis in Cleveland, Ralph M. Watkins, Chairman, J.A.M.A., to be published.

Year	Mortality rate in per cent
1930	6.8
1931	6.6
1932	6.6
1933	5.7
1934	5.8
1935	5.8
1936	4.4
1937	4.8
1938	3.7
1939	3.7
1940	2.9
1941	2.8

Thus it is to be seen that at present we are losing fewer than half the patients who died from these diseases in 1930.

CONCLUSION

The decline in mortality rate over the twelve year period is pleasing indeed, but we feel that it can be further reduced by discontinuing entirely drainage in acute simple appendicitis and avoiding drainage as far as possible in peritonitis, these recommendations to be carried out along with other improvements in therapy as they are developed.

10515 Carnegie Avenue.

Mortality in Older Age Groups

In spite of the apparent shift of the peak of mortality toward the older age groups, tuberculosis is still second in importance as a cause of death among men 20 to 34 years of age, while the highest incidence of mortality from tuberculosis is still in the age group 15 to 29. In most cases in which tuberculosis is diagnosed at a late age, it could have been diagnosed earlier had the patient been examined at, or about, the age of 30.—R. E. Plunkett, M.D., War Medicine, Sept.-Oct., 1941.

Since Huggins popularized castration for the treatment of carcinoma of the prostrate, the literature has vibrated with reports from various clinics as to the efficacy of this approach to the control of a malignant condition so prevalent, heretofore incurable and little relieved except by surgery or irradiation in a few cases who were found to have an early phase of the disease. It must be remembered that carcinoma of the prostate is a slow growing tumor, that patients have been known to live 14 to 17 years with the tumor, that the average incurable case lives about 4 years after the diagnosis is made.—Conn. S.M. Jour., Vol. VI, No. 10, October, 1942.

Diarrhea

Diarrhea is an urgent symptom. Its effects on the digestive tract and on the individual as a whole are many and profound. It troubles both the body and the mind. It demands relief.

Diarrhea may be originated by any stimulus within or without the digestive tract which increases peristalsis.

It is possible to group diarrhea into five varieties, according to the nature and source of these stimuli. These are:

1. Diarrhea due to metabolic (such as hyperthyroidism) and nervous stimuli arising outside the intestine. These nervous stimuli may be reflex from disturbance of other organs, or psychogenic, arising from personality disturbance. These stimuli produce hyperactivity of the neuromuscular apparatus of the intestine but lead to no pathologic changes. The diarrheas are generally chronic.

2. Diarrhea resulting from deficiencies of secretion and absorption. Included in this group are the steatorrheas and pellagra. In this group of diarrheas, as a whole, the intestinal changes are chronic, consisting of atrophy and perhaps of chronic inflammation. A degeneration of the nerve cells of the myenteric plexus has been described. These conditions are always chronic or recurring.

3. Diarrheas due to the irritation of the mucous membrane by ingested irritants including indigestible foods, such as mushrooms, by food allergies, food-poisoning infections, cholera, and possibly virus infections. The pathology is a catarrhal inflammation of the mucous membrane. The diseases are acute, often violent and transitory.

4. Diarrheas due to irritants which penetrate into the submucosa and muscularis, bringing about ulceration and bleeding and often intense inflammation. These are chronic diseases, though they may have acute episodes. Included here are regional enteritis and tubercular enteritis, nonspecific lucerative colitis, and colitis due to bacillary or amebic dysentery, also ulcerative colitis due to such things as uremia, mercury and arsenic poisoning, and to tuberculosis, actinomycosis, and lymphogranuloma inguinale.

5. Tumors, polyps, and malignancies. I have given a working grouping of diarrheas based on the degree of pathologic changes in the intestine. An etiologic classification is not satisfactory, as the cause of so many diarrheas is unknown or debated. The differentiation of these diarrheas is made chiefly by history and examination of the stools and the rectosigmoid and colon.—Stockton Kimball, M.D., Buffalo; N.Y.S. Jour. of Med., Vol. 42, No. 20, October 15, 1942.

The Role of the Physician in Industry in Control Of Acute Respiratory Disease

JOHN H. SKAVLEM, M.D., Cincinnati, Ohio

ACUTE respiratory disease is the greatest saboteur of manpower hours in industry's effort for victory in this war. Accidents in and out of work and even casualties in warfare do not sum up in terms of manhour time lost as does the sick list of this battery of diseases. The United States Public Health Service has estimated that every gainfully employed person in the United States loses two and one-fifth work days each year because of the common cold alone. This did not take into account other of the minor respiratory infections such as tonsillitis, pharyngitis, nasal sinus infection or the more serious ones of influenza and the pneumonias. There are now at least fifty million gainfully employed persons in this country. Multiply this number by two and one-fifth work days lost per annum and this sum by the average daily wage of about four dollars a day and you end up with a staggering figure whether you are thinking in terms of dollars or production.

The medical battle against the common cold is an old one and a disheartening one. Little progress in cure has been made. The reason is that we are not combating one specific organism or even group of bacteria, we are groping to control and kill an ultra microscopic virus aided by cohorts of secondary bacteria that we can study. We can see the secondary invaders of streptococci, staphlococci, influenza bacilli, micrococci catarrhalis, and others, but the real bomber lurks as a virus that we identify only by habits and environment. Our best efforts of prevention lies in control of its environment.

It is evident and fundamental to remember that acute respiratory infections are passed around freely and easily from one infected individual to another susceptible host. This is done by cough, sneeze, kiss, eating utensils, towel, door knob or hand shake. First means in attack and prevention is early diagnosis of the infected person and lessening his contacts with others. The medical department of our industry must know early the existence of all cases of acute respiratory infection, minor or serious, be it sneeze, running nose or a pain in the chest. Investigate promptly by medical aids the cause of all absenteeisms. Visit homes of the workers absent for more than a day or repeated intermittent days. Note the prevalence of acute respiratory diseases in certain departments and find why. In home or work room it may be a chronic carrier serving as contact, faulty ventilation, too much heat, too little sun, dust in abundance, or poor sloppy sanitation.

Supervisors in the working rooms should be important aids to enforce medical discipline, prevent over-crowding, watch ventilation and serve as outposts in observing for the incipient cases. The enviroment of the worker may not be at fault, it may be the worker himself. Examine the worker, preferably in pre-employment examinations, for conditions in the respiratory tract conducive to repeated acute infections. Chronic nasal sinus infection, infected tonsils, oral sepsis, allergic manifestations of asthma, hay fever, evidence of chronic bronchitis, bronchiectasis, mitral heart disease, anaemia, exposed by history or telltale observations of pale skin, deep chest, shallow breathing, clubbed fingers, cyanosis, call for insistent advice by the industrial physician for the worker to consult his own doctor.

Education of the worker as to his part in making his own body a poor enviroment in which disease germ can live and multiply is very important. This educational program can be initiated, broadened and sustained by health bulletins issued periodically to the employees or published in company magazines. The health record of the personnel should be given as much competitive publicity as accident prevention. Posters can serve well to emphasize the seasonal hazards of acute infections or warn about threatened or real epidemics. Lectures in assemblies or on the radio give encouragement for study and appreciation of public and individual health. Health talks must be accurate, easy to understand, to the point, and interesting. Emphasize the problem of contact infection. Talk about the use and misuse of soiled hands, tools, pencils, napkins, papers and clothes. Let it be known that their job is not jeopardized by reporting sick and that there is no intention to interfere with personal liberty and free choice of physician.

Preach and preach hard the seriousness of **fatigue.** No other single factor contributes so much to lowered human resistance against acute respiratory infections as **fatigue.** Work hours are regulated for the individual; free hours are not. Management and government do well not to overdraw work hours in zeal of accomplishment. Sleep undisturbed in adequate amount is imperative. In these days of 24 hour programs and staggered schedules of work the time for sleep is

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One of a series of editorial summaries on industrial medicine in time of war, written at the request of the Editor.

irregular. The sleep time must be guarded for the worker against disturbances in the home, in the street, in the neighborhood. Other factors in resistance are nutrition, smoking and alcohol. Wholesome moderation in eating, smoking, drinking and recreation is the gospel to preach.

Specific treatment and prevention are lacking or inadequate. The magic of chemotherapy utilized in treating pneumonia is wanting in the common cold. Utilization of small doses of a sulfanilamide drug as prevention of bacterial invasion or complication is a hope not yet fulfilled but promised.

Vaccine injections used as preventive methods is better the more specific it is in application. Autogenous vaccines well chosen lead in efficacy. Stock vaccines are effective in indeterminate cases. Neither warrant general compulsory use. Oral vaccines are worthy of trial because of ease of administration, lack of harm and expense. Their effect is hit and miss in a sort of a hope and a prayer chance of knocking out some of the secondary invaders. Vitamin therapy is a sad confession of inadequate diet. But confess we must that ultra modern methods of preparation of foods, irregular habits of eating and excessive alcohol make vitamins in capsules necessary.

Prevention and cure of acute respiratory disease comes not in vial, capsule or elixir. It comes in regulation, discipline, cleanliness, not to neglect Godliness, in keeping mind and body fit.

Bronchiectasis

Preventing a disease as disagreeable and fatal as we now know bronchiectasis to be is certainly to be preferred to treating it. Accepting the theory that disturbance in the self-cleansing capacity of the lung or impairment of local pulmonary ventilation may lead to atelectasis and thereby set the stage for the development of bronchiectasis, we have a sound basis for means of prevention. Correct breathing would seem to be fundamental, and anything interfering with normal respiration should be corrected. In acute respiratory infections, especially in children, be sure that the dependent portions of the lung do not become blocked by secretions; encourage broncial drainage by change of position.

In frequently recurring respiratory infection, rule out allergy as a predisposing cause. Watson and Kibler of Tucson state that in fully 90 per cent of their cases a diagnosis of allergy may be made on the evidence found. No one else has ever reported such a high figure. Less than 20 per cent of the very few cases we have skin tested are found to be allergic.—M. D. Bonner, M.D., Jamestown; N. Carolina M. Jour., Vol. 3, No. 10, October, 1942.

Diarrhea

I should like to take up the subject of practical treatment and to discuss it under three headings. First, acute diarrheas, specific and nonspecific. These are of the utmost importance nowadays because of the war. They are the common diarrheas of camp and battle field, and also may become widespread in the civilian population under certain unfavorable circumstances. The immediate requirements for treatment are rest and proper diet. Rest is secured by evacuation of the patient to the rear, which is a medicomilitary problem and need not concern us further here.

If bacillary dysentery is suspected, a saline purge is usually administered. The initial feeding plan can best be built around hot tea and hot fruit juices. It is important to note that the fruit juices are to be given diluted and hot, instead of concentrated and cold as ordinarily taken. They may be used as a vehicle for sugar. In the 1940 first Army maneuvers in northern New York, bananas were fed as the first solid food. (There will probably be no lack of bananas in the tropics in the present war.) Next was fed meat in the form of chopped beef. Colonel Lucius A. Salisbury has just told me that the same plan of management worked effectively in the 1941 maneuvers in the southern states.

The treatment of chronic specific and nonspecific diarrhea has been well outlined by Dr. Kimball, the main features being replacement of fluids and electrolytes, and of vitamins and certain metals, such as iron and calcium, and of whole blood. All I should like to add in this connection is that there are two conditions characterized by diarrhea that, in my experience, are very often not diagnosed. These are regional ileitis, because of the need for specialized fractional roentgen study of the small intestine, and steatorrhea, which can only be proved by fecal analysis or blood sugar study, or by roentgen demonstration of abnormal small intestinal pattern.

Finally, I shall say a few words about chemotherapy. As a matter of fact, there is nothing new about the effort to achieve intestinal disinfection. When I was studying my medicine over thirty years ago with Dr. Bastedo, who is present today, salol was widely used as just such an intestinal disinfectant. Now the fashion has changed and we are told that the sulfa drugs are effective in this direction. May I remind you that the evidence for this belief is based, as yet, on laboratory experiments and very little clinical experience. We all hope, of course, that the sulfa drugs will prove to be the long-desired panacea.—John J. Kanter, M.D., New York City; N.Y.S. Jour. of Med., Vol. 42, No. 20, October 15, 1942.

Uterus and Vagina, Duplex

STERLING WALLACE OBENOUR, M.D.

CASES of double vagina and uterus have been reported from time to time in medical literature, many of them with a history of pregnancy in one or both sides. I have been able to find reports of 15 cases in different parts of the world, which have been published since 1879. Due to the rarity of such cases and to the fact that I have been fortunate enough to secure excellent photographs and X-rays of my patient, I feel that this case can well be called to the attention of the profession, and is of value in demonstrating this unusual condition.

Mrs. V.D.M., age 26 years, came to my office with the complaint that her periods were not like those of other women. She also stated that she was anxious to have children, but had not, in her three years of married life, become pregnant.

She is a small, dark haired, white female, weighing one hundred pounds, with a history of good health, and is quite intelligent. However, her menstrual periods are unusual. She began mensturating at the age of seventeen, and her periods are the regular twenty-eight day type. However, instead of one menstruation, she has two periods, separated by one to three days. Each period is normal, four to five days in length, with average flow. She has suffered no pain or cramps since the age of 20.

Her family history is essentially negative. Her mother is living and well at the age of 57. Her father died at the age of 62 from a cardiac condition with asthma. Four brothers are living and well. One sister, age 15, is living and well. There is no history of mental or physical abnormalities in the family. However, the patient's mother is a twin, and there is a history of twins among both the maternal and paternal relatives.

On examination, attempting a bimanual, I was much surprised to find two separate openings. On inspection I found two well developed vaginae, separated by a heavy, strong septum. A speculum was introduced into each side, and revealed a perfect cervix at the head of each vagina. On bimanual examination, two distinct uteri could be felt. We have been able to ascertain that her periods are separate, each uterus menstruating individually, at a different time.

The situation was explained to the patient and she was advised that her condition should be thoroughly checked, both as to patency of the tubes and the cavities of the uteri. I then took X-rays which revealed two distinct channels with both right and left tubes patent. I suggested that pictures be taken of these abnormalities. These excellent photographs were made by Dr. Charles Bowen, of Columbus, Ohio. After first picturing the septum, it was removed, a tonsillectomy being performed at the same time. After healing, a second picture, with cone, was taken of the two cervices. The accompanying illustrations, I believe, well demonstrate this rare condition. As far as I have been able to ascertain, no X-rays or actual photographs of a double uterus and vagina are on record.

The Author

● Dr. Obenour, Zanesville, Ohio, is a graduate of Ohio State University College of Medicine, 1928.

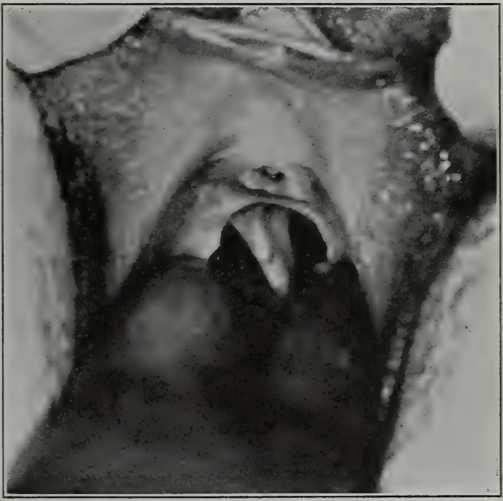

Fig. No. 1. Septum demonstrated by separation of labia minora and insertion of fingers into right and left vagina.

Feeling that failure of conception might possibly be due to under-development, the patient was advised to take inter-muscular injections of Antuitrin S, 500 units, three times a week. From July 20, 1942, to the present time, Sept. 1, 1942, she has been following this course and states that she is gaining in weight, and having a marked increase in energy. The breasts are developing and the uteri seem increased in size.

While intercourse was sometimes painful prior to the removal of the septum, she is without pain now. The septum was composed of heavy

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Submitted October 1, 1942.

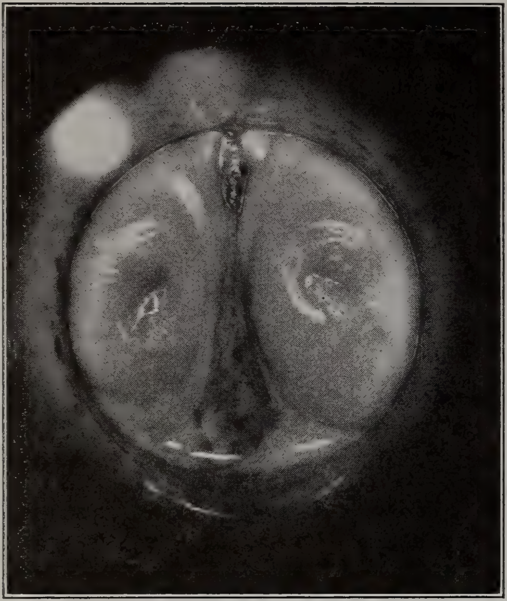

Fig No. 2. Two cervices demonstrated with large cone inserted into the vagina. Between the cervices may be seen the partially healed attachment of the septum in which muscular and fibrous elements appear.

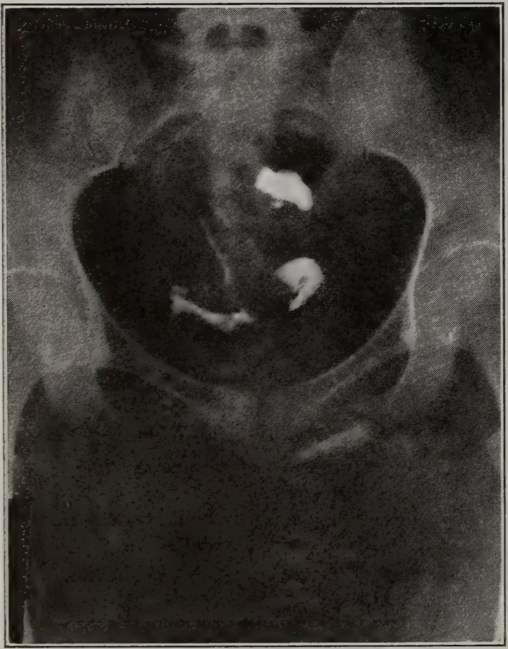

Fig. No. 3. Injection of both cervices reveals two distinct narrow channels through both uteri.

connective tissue with some muscle structure evident.

It is my belief that this woman can become pregnant, and in every probability deliver normally.

155 North Fifth Street.

Endocrine Hypertension

There are several varieties of endoctrine hypertension, each unique. One is typified by a young man observed recently who had a moderate hypertension thought to be "essential." About once or twice a week, however, he experienced attacks of precordial distress, palpitation, headache, dizziness and dyspnea, variously diagnosed without much conviction. It was not until an alert intern measured his blood pressure during one of these episodes that the diagnosis became obvious. From a baseline of perhaps 150/100 mm. of mercury his pressure would suddenly climb to unrecordable heights, the systolic pressure being greater than 300 mm. of mercury and the diastolic occasionally being above 200.

In the foreign literature, a few cases of paroxysmal hypertension have been attributed to miscellaneous lesions of the esophagus, mediastinum and brain, but the presumptive diagnosis should always be a tumor of the chromaffin system. Violently fluctuating blood pressure is therefore primarily a surgical problem, and a search must be made for adrenalin-secreting tumor tissue. The commonest site is of course the adrenal medulla; therefore, bilateral exploration is indicated even though no mass can be palpated or indirectly demonstrated. The growth may lie anywhere along the course of the aorta, however, so that localization may be impossible. These cases are rare but their treatment is most gratifying.

A second type of hypertension, clearly endocrine in origin, is dependent on tumor or hyperplasia of the adrenal cortex. This requires no more than passing comment because it is but one aspect of the bizarre disorder known as the adreno-genital synodrome. The clinical picture depends upon the age and sex of the patient. Premature puberty, masculinization of the female and Cushing's syndrome in the male are all variants. Hypertension is a frequent feature. It is presumably due to hyperactivity of the adrenal cortex because desoxycorticosterone raises blood pressure and because removal of a cortical tumor results in subsidence of the hypertension. In many cases, perhaps in the majority, no cortical adenoma will be found. The glands may be diffusely enlarged but subtotal resection is a hazardous procedure and should not be attempted. In this situation, the surgeon should be prepared to section the splanchnic nerves and excise the upper lumbar sympathetic ganglia. No one has had a large experience with sympathectomy in this disease, but there are theoretical reasons for believing that the blood pressure response should be satisfactory.—Thomas Findley, M.D., New Orleans; Tri-State M. Jour., Vol. 15, No. 1, October, 1942.

Rational Approach in Osteomyelitis of the Frontal Bone Caused by Sinusitis

Report of Twelve Cases

RUSSEL G. MEANS, M.D.

WHEN one studies the possibility of serious complications following infections of the peri-nasal sinuses, he is led to wonder if the sinuologists have not lagged behind those who have directed their interest to the complications of the middle ear and mastoid regions. There are certain observations which may be made concerning similarities between the etiology, progress, and treatment of osteomyelitis of the frontal bone and that of the mastoid area. It has long been a basic rule, when meningitis develops in cases of acute or chronic otitis media or mastoiditis, that the primary focus should at once be suspected as the probable source. All otologists have recognized that virulent infections with a rapid onset are very apt to cause invasion of the dura and the lateral sinus by osteonecrosis, thus predisposing the patient to further dangers such as meningitis, brain abscess, or septicemia by contiguous pathologic changes.

It is most discouraging to hear the pathologist, reporting a death due to meningitis, state that an unrecognized frontal or ethmoid infection had by contiguity caused the terminal meningitis. Nearly all cases of osteomyelitis of the frontal sinus walls result from untreated or neglected impounded acute purulent sinusitis. In chronic cases nature forestalls these devastating extensions by sclerosis of the intervening osseous walls.

Acute frontal sinusitis developing edema over the forehead and later resulting in osteomyelitis, should be observed under the same rules as those firmly laid down for mastoiditis. Microscopic sections have proved that edema of the brow following acute frontal sinusitis is pathognomonic of osteomyelitis with the ever coexisting thrombo-phlebitis of the diploe. The mastoid process, like the tables of the frontal bone or cranium, does not reveal by roentgenograms sufficient absorption of the calcium contained in the bone to give a positive diagnosis in the very early stages. Seven to ten days must elapse, as is observed in any osteomyelitic process, before it is exhibited on the X-ray film. Referring again to acute invasions of the mastoid process, it is not considered good surgical judgment to operate immediately in the fulminating invasion stage unless definite findings and symptoms of meningitis or septicemia are proved. Likewise, it has been my practice in treating frontal sinusitis to allow the fulminating process to subside, and, when a definite diagnosis can be made, to pursue an operative course similar in principle to those used in invasions of the mastoid and temporal bone.

The Author

● Dr. Means, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1919; fellow American College of Surgeons, American Academy of Ophthalmology and Oto-Laryngology; member of staffs, University, St. Francis Hospitals; chairman, department of oto-rhino-laryngology, White Cross Hospital; assistant professor, Ohio State University College of Medicine.

Osteonecrosis of the frontal sinus wall, in my experience, has resulted from obstructed drainage due, first, to a deflected nasal septum or an aberrant cell in the middle turbinate or ethmoid pressing on the naso-frontal duct; and second, to an unusually excessive reaction of the nasal mucous membranes occluding the sinus osteum. By establishing drainage the patient will be relieved, intracranial complications may be prevented and recovery hastened. Every acute or fulminating infection in the sinuses should be recognized and actively treated; this is an axiom which has long been followed in mastoiditis.

There appears to be some controversy in the management of so-called advancing frontal sinusitis regarding the proper time for surgical interference. There are authorities who insist that, in the earliest stage of edema of the forehead, even when no complications appear, an immediate and extremely radical operative course be pursued with the removal of the entire bony frontal cap by wide excision. This radical method exposes a very large area of dura and requires a long period of hospitalization and extensive later plastic repairs. It seems logical that such action is indicated only in rapidly fulminating, complicated cases; however, according to the experience of other surgeons, such a procedure is usually unwarranted in cases showing

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Read before the Section on Eye, Ear, Nose and Throat, Ohio State Medical Association, at the Ninety-Sixth Annual Meeting, Columbus, Ohio, April 28, 29 and 30, 1942.

no symptoms of meningeal irritation. In contrast to this radical type of surgery it would appear, and is readily admitted, that the incision of the scalp or simple curettage of an osteonecrotic process, a so-called sequestrum, does not get beyond the thrombo-phlebitic bone pathology. In the light of past experience both in frontal sinusitis and in temporal bone involvement, removal of all necrotic bone by following through widely into healthy bone is essential. The surgeon must also uncover all the underlying extra-dural abscesses or areas of pachymeningitis until a substantial margin of normal dura is obtained in all directions.

Surgical procedures via the intranasal route during acute infections of the sinuses are usually frowned upon, but occasionally such heroic measures become necessary to establish the desired drainage. A removal of the tip of the middle turbinate, cutting into or uncapping the ethmoids, biting away cells to open the frontal tract, or even doing a submucous resection of an obstructing nasal septum, may be required. Such intranasal operations may avert extension of the septic process and render unnecessary the more deforming external radical approach. When frontal edema indicates a collection of pus, an incision through the brow may become necessary to evacuate the sub-periosteal abscess. In the meantime supportive treatment, as well as adequate dosage of a sulfa drug, may improve the general resistance of the patient and offer a much better prognosis should the removal of the frontal plates by craniotomy become indicated. When surgery is required, the question of cosmetic results or deformities must be held secondary to the necessary adequate removal of all diseased bone. Plastic procedures later can minimize the disfigurations.

Dr. H. P. Mosher and others have proved that the septic thrombo-phlebitic process extends beyond the area of apparently normal bone. Emissary veins may carry the infection directly to the meninges, the involvement of which offers a further guide in that normal, uninvolved dura must be exposed in every direction at operation. If uncomplicated by meningitis, a brain abscess, or a marked dural inflammation, the scalp and periosteum may be sutured back into position using rubber drains as a precaution. An adequate opening into the nose is very essential and may require the sacrifice of turbinate tissue and exenteration of part or all of the ethmoid cells. Further, windows into the sphenoid and antrum, when they are invaded, must be of sufficient size to insure adequate drainage. Supporting the operative procedures, a powdered sulfa drug may be used in the wound and on the packing. It is to be noted that Army Surgeons prefer powdered sulfanilimide for this purpose. The bacterial inhibiting drugs should also be given by mouth and continued in small doses for several weeks after apparent recovery to prevent latent complications. Transfusions and other supportive measures must be resorted to as conditions may indicate.

CASE FINDINGS

The twelve cases of osteomyelitis of the frontal bone herein reported came under my care during the last eight years, five during the late winter of 1940. The youngest was aged 2½; the oldest 42; average age 20. Only two cases were females. Nine recovered (75 per cent); three died (25 per cent); of the latter, two had advanced brain abscesses when first seen; the other fatal case recovered from the radical operation but died of streptococcic meningitis. Bacteriologically, eight showed staphylococci or a mixed infection; two streptococci; one pneumococci; one syphiloma. Four cases had convulsions.

SURGERY

The time from onset to radical operative interference, excluding two chronic cases, was four weeks, the earliest, three weeks.

Eight cases showed pachymeningitis; in two cases normal inner table was not removed; one case revealed syphilitic involvement of the temporo-frontal and parietal bones.

Case I. Male, age 37—six years previously had fracture of frontal table. Several previous operations were unsuccessful in relieving the draining sinus on forehead. Recovery after radical operation with exposure of old dural inflammatory area.

Case II. Female, age 20—acute, following swimming, convulsions, delirium, meningismus. Recovery after radical surgery uncovering pachymeningitis beneath both frontals. Forehead flaps not replaced for six weeks. Later plastic rib graft.

Case III. Female, age 42 — colored — acute swelling with fever; extensive luetic fronto-temporal osteomyelitis. Previous negative Wassermann tests.

Case IV. Male, age 18—severe "cold" five weeks. Radical operation and recovery. Pansinusitis bilateral; necrosis, outer table of one frontal sinus.

Case V. Male, age 16—orbital abscess from acute sinusitis, one week. Intra-nasal surgery did not prevent a radical frontal operation four weeks after onset, which revealed pachymeningitis. Recovered.

Case VI. Male, age 31—frontal osteomyelitis of ten months duration, complicated with drained brain abscesses, meningitis and paralysis. Radical removal of the primary necrotic process confirmed direct extension to meninges and brain. Completely healed before death two months later.

Case VII. Male, age 17—bilateral pansinusitis, osteitis of outer table removed with later ethmoid exenteration and antrum drainage. Recovered.

Case VIII. Male, age 13—"cold", convulsions, high temperature, orbital abscess drained on eighth day; radical frontal craniotomy at end of two months. Recovered.

Case IX. Male, age 2½—"flu" and orbital abscess of ethmoid origin; swelling progressed up middle of forehead into vault; seen by me nine weeks later. Radical operation up midline to four inches above brow, pachymeningitis with peri-superior longitudinal sinus phlebitis. Recovered.

Case X. Male, age 15—swimming, orbital abscess incised, submucous and intranasal drainage. Two weeks later radical frontal with removal of the outer table; inner table normal, uninvolved dura explored. Recovered.

Case XI. Male, age 12—admitted with draining brain abscess through frontal of two months standing; radical operation, drained multiple brain abscesses. Died two months later.

Case XII. Male, age 28—acute frontal osteomyelitis of three weeks duration preceded by long-standing chronic pansinusitis; removal of both tables of necrotic frontal bone. Sulfadiazine pre- and four days post-operatively. Discharged in excellent condition on eighth day. Next evening developed streptococcic meningitis. Died in 60 hours. Continuance of sulfadiazine might have prevented this fatality.

SUMMARY

I. Edema over the frontal region in acute sinusitis is pathognomonic of underlying osteomyelitis with potential fatal complications.

II. In fulminating cases of frontal sinusitis, prompt treatment, including intranasal surgery, provides a possibility of averting bone necrosis.

III. Before a radical craniotomy is performed, a guarded "cooling off" period offers the best prognosis.

IV. Removing the osteomyelitic area thoroughly, then proceeding beyond to include a margin of normal bone, assuring exposure of uninvolved dura, is essential to recovery.

V. The value of sulfa drugs in adequate dosage must not be under-estimated.

VI. Staphylococcus was the most commonly proved organism.

40 South Third Street.

Comparison of Amebic and Bacillary Dysentery

	Amebic	Bacillary
As usually seen	Chronic endemic disease	Acute epidemic tendency—Shiga, Flexner, Sonne (Sonne-Duval, Sonne-Kruse)
Incubation period	Lengthy—2 to 7 weeks	Short—5 to 7 days
Stools	Offensive, blood, mucus in lesser amount; usually not so numerous but more copious	Odorless; much jelly-like mucus and bright blood; numerous but small amounts
Sigmoidoscopy	Small ulcerations with hemorrhagic margins—intervening areas—usually not inflamed; scrapings for vegetative and cystic forms best for diagnosis	Painful and dangerous in acute stage; much rigidity of bowel wall; ulcers, when visible, usually serpiginous outline with margins ragged and underminded; swabbing for bacterial study
Carriers	In some parts of the U.S. as high as 10 per cent (C. F. Craig). Danger—spread of disease; isolation necessary until bowel mucosa heals	Danger—spread of disease; isolation necessary until no mucus is passed in stools
Prophylaxis	General sanitation; pure water supply and proper food protection from flies and carriers. Proper dental care, early treatment of nose and throat ailments	Same as amebic dysentery
Treatment	Bed, diet, fluids 1. Emetine (hypo.)—gr. ½ b.i.d. for 4 to 6 days. Carbarsone (cap.) gr. iv b.i.d. for 10 days 2. Emetine and bismuth iodid. (cap.) gr. 1 (until 20 gr.) 3. Yatren gr. iv t.i.d.; doses until 10 Gm. Retentiin enemas (rectal) Carbarsone 2 Gm. in 200 cc. N. saline sol. or Yatren 5 Gm. in 200 cc. warm water (repeated daily for 7 to 10 days) Precede each retention enema with cleansing enema of 2% sod. bicarb. in pint warm water	Bed; low residue and high caloric diet; force fluids Antidysenteric serum (60 to 80 cc. every 36 hrs.) Preliminary purge of castor oil ½-1 oz. and paregoric 2 cc. (repeated) Calomel gr. ½-hr., 10 doses; repeat on 3 successive days Castor oil or citrate of magnesia or sod. phosphate (repeated) Appendicostomy? Sulfathiazole 4.0 Gm. Stat.; thereafter 2.0 Gm. q.i.d. for 5 days

—Martin Seler Kleckner, M.D., Allentown, Pa.; N.Y.S. Jour. of Med., Vol. 42, No. 20, Oct. 15, 1942.

Alopecia Areata

HARLEY A. HAYNES, Jr., M.D., Akron, Ohio

ALOPECIA AREATA or patchy baldness is characterized by circumscribed, round or oval, patches of non-inflammatory loss of hair. These patches of baldness may be variable in size and number, may occur anywhere, but are more common on the scalps and bearded regions. The loss of hair is attended by no symptoms, and is usually rather rapid, frequently being unknown to the patient until called to his or her attention by barber or beautician.

When developed, the surface of the bald areas is smooth and shiny, with no evidence of inflammation. These areas may enlarge and become confluent, causing embarrassment and self-consciousness for the victim. The peripheral zones of extension are occasionally sprinkled with short, atrophic hairs, easily pulled out — the so-called exclamation point hairs.

Alopecia areata may usually be differentiated easily from the other conditions causing irregular, patchy baldness. The secondary stage of syphilis can produce an irregular, moth-eaten loss of hair on the scalp and eyebrows. These patches are quite small, and the remaining hair is dull and lack luster, and of course other general signs and evidences of active syphilis can be searched for and found.

The various types of ringworm of the scalp, caused by many different pathogenic fungi, produce loss of hair. However, with the exception of favus, ringworm of the scalp occurs in children below the age of puberty. The patches of ringworm have a slow onset, with gradual extension, and evidences of inflammatory reaction and scaling. Furthermore, the causative fungi can be readily found by microscopic examination of the infected hairs.

Other diseases or injuries may cause local loss of hair, due to actual destruction of the scalp and hair follicles, followed by scarring. Common examples of this type of alopecia may be scars from boils, carbuncles or lacerations, and from such destructive diseases as favus, lupus erythematosus, syphilitic gummas or the pseudo-pelade of Brocq.

The course of alopecia areata is variable. The involvement may be slight, with rapid regrowth of hair, or extensive with very delayed or no regrowth of hair. The disease is more frequent in males, and may occur during any decade of life. The outlook for regrowth is, in general, more favorable in children. Loss of the eyebrows seems to be a bad prognostic sign for recovery. A small number of cases go on to a total alopecia, with loss of all bodily hair, including the fine lanugo hairs and the eyelashes. This latter group, alopecia totalis, is usually not responsive to therapy.

When regrowth of a bald area occurs, the first hair to develop is a very fine, light colored downy fuzz. Gradually more vigorous hairs appear, coarser and darker in color, and the fuzz is shed. Finally, the hair darkens more, and becomes of normal thickness and profuseness. Rarely the regrowth on the previous bald patches remains lighter than the surrounding hair.

It is impossible to predict the length of time necessary for regrowth of hair, nor even to be able to positively assure the patient he will have a return of his former locks. However, with the exception of alopecia totalis, I believe that within four to eight months, 90 percent of patients will again have hair and be rid of their embarrassment. Among all causes of self-consciousness, alopecia areata must rank near the top, not only because of the disfiguring appearance, but also because the patient fears that his associates suspect him to be stigmatized by syphilis or some other shameful infection.

CAUSE UNKNOWN

The cause of alopecia areata is unknown. Theories have been multiple and conflicting, with very little to substantiate them. Thirty years ago, due to several published reports of apparent epidemics, it was thought to be contagious, but no causative organism has ever been identified, and it has proved impossible to infect or inoculate a person to produce the disease.

During and after the last war, cases were reported due to trauma on the scalp, but close investigation revealed that in the cases of head wounds, the surrounding alopecia was limited to areas of radiologic examination, made in search of shell fragments.

In 1886 Max Joseph advanced the nervous theory of causation, and produced patches of alopecia on the head and ears of cats by section of the occipital nerves. However, these experiments have not been entirely substantiated.

The neurotrophic theory of Jacquet seems at present to be more convincing. Foci of irritation such as dental caries or errors of refraction are frequently found, and their elimination hastens the recovery of the patient, and also seems to prevent recurrences. A very high percentage of patients suffering from alopecia areata have small errors of refraction, usually astigmatism, and

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Dr. Haynes was selected to write an editorial summary on the above topic by a committee of leading Ohio dermatologists.

commonly in an oblique axis.* It is unusual to see alopecia areata associated with such gross errors of refraction that the patient complains of visual disturbances.

TREATMENTS RECOMMENDED

Because of the uncertainty as to cause of this disorder, the treatments recommended are numerous, and as usual, many types of treatment mean that no single one is specific. After a definite diagnosis has been made, the patient may be assured that he is not suffering from an infection which might be transmitted to his family. He may also be reasonably assured that eventually he will probably have a normal regrowth of hair.

Treatment should include scalp hygiene and elimination of any foci of infection, if present. Many different local stimulating lotions and ointments have been recommended, all the way in strength and severity from a mild sulfur ointment to the blistering of involved areas with cantharides or the local application of liquid phenol. These latter two procedures are attended by considerable pain and irritation, not to mention the possibility of causing local scarring with permanent alopecia, or even generalized systemic effects from absorption of phenol. I believe them to be much too dangerous and drastic to be generally used.

Ultra-violet radiation locally to the involved regions has general acceptance, is not dangerous, and probably helps the majority of patients. X-ray therapy is not looked upon with favor.

Shampooing the scalp thoroughly two or three times weekly, followed by a stimulating lotion, seems to be of considerable aid. I would recommend 10 percent resorcin in a tincture of green soap (Lin. Sapon. Moll.) for the shampoo, to be thoroughly rinsed from the scalp after washing. After the hair has been partially dried, the following stimulating lotion may be well rubbed into the scalp by the finger tips.

℞	Liq. Pic. Carb.	24.0
	Ol. Ricin.	6.0
	Ol. Caryoph.	6.0
	Methyl. Salicyl.	6.0
	Alcohol	240.0

In view of the high percentage of associated errors of refraction that are found, the patient should be refracted and wear glasses if the error is significant. Patients with dental caries or abscesses should have complete dental X-ray studies, with correction of any defects or extraction of abscessed teeth.

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Health Planning

The organization of health units is no longer an experiment, but a standard procedure. Needless expense and confusion occur only where personnel are poorly trained and inexperienced. With well-defined objectives, a complete preliminary survey and careful planning, the creation of a health unit presents few difficulties.

The taxable wealth of the unit should be sufficient to provide adequate funds without an excessive rate of taxation. The amount of public debt per person and the spending money income per individual are probably the best indices for the determination of the ability of a region to support a health department. In the absence of a subsidy from an outside source, it is usually unwise to create an independent health unit unless its tax basis will yield $10,000 without exceeding an annual cost of $1.00 per capita or $4.00 per average family.

While there are special situations where it may be best to disregard this general rule, it should always be remembered that an effective program and continuous improvement in public health rarely come from an under-manned organization with under-paid personnel and inadequate funds for operation and transportation.

It is better not to begin than to start in the wrong way. The success and permanence of health organizations depend upon an adequate staff. Make-shift "set-ups" and so-called "modest beginnings" with the appointment of an individual without proper training and experience are rarely worth their cost. Very often such attempts so discredit public health work that influential citizens later refuse to give their moral and financial support to the development of a better health organization.

Disease reduction is dependent upon the use of technical knowledge. Its application in a democracy can only be most highly effective where popular understanding insures thorough cooperation, sufficient funds, and properly trained personnel. The public should not be led to think otherwise.

Factor Assuring Success—Public health work should be efficient from its beginning. Although everything cannot be done at once, each step should be in the direction of an adequate program. It should be such as to win support by showing its usefulness and the advantage of its further development.—J. Howard Beard, M.D., Urbana, Ill.; The Ill. M. Jour., Vol. 82, No. 4, October, 1942.

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* Report on association of refractive errors and alopecia areata to be published by T. L. Parry and H. A. Haynes, Jr.

Pessaries In Office Practice

WILLIAM H. WEIR, M.D.

OPERATIVE MEASURES have largely supplanted pessaries and properly so, but there is still a place for them and in my own experience they are absolutely indispensable in "medical gynecology." The younger generation seem to know little about them, as I have found in examining candidates for the National Board of Medical Examiners. Very few of these recent graduates from many different medical colleges know anything about pessaries and have apparently never seen them used in the clinics in which they have been trained.

A pessary is an artificial support to compensate an impairment of the pelvic floor and prevent any ensuing descent or prolapse of the pelvic organs. They also serve to correct malpositions of the uterus, which are often secondary to a relaxed perineal support but which may occur with an intact outlet.

VARIOUS SHAPES OF PESSARIES

An infinite variety of different shaped pessaries have been devised but one usually relies upon two or three different patterns in varying sizes. They were invented long ago when operative measures were far more dangerous than today and before a satisfactory technic for perineal repair had been developed.

The question is often raised, why bother with pessaries when a surgical procedure is usually the only real and permanent cure for the conditions for which they are used? Time will not permit a discussion of this, I shall simply point out that in many cases an operation is impossible or inadvisable at the moment and has to be postponed. In the interval a pessary may give complete relief. The temporary use of a pessary will often give valuable information as to what may be expected from a subsequent operation. In many uterine displacements a pessary alone may effect a permanent cure. Certainly I do not suggest that pessaries should supplant operative measures but in many conditions they will be found most useful.

Since pessaries are used to correct malpositions of the uterus and other pelvic viscera let us briefly review those structures which maintain these organs in their normal position. The pelvis forms the lower part of the abdominal cavity. It is bowl shaped, its walls being mainly of bone but its floor consists of fascia and muscle forming what might be called the inferior abdominal wall. It is penetrated in women by three openings, urethra, vagina and rectum. Relaxation of the vaginal outlet is very common. This will permit certain of the lower abdominal, otherwise pelvic, contents being forced out by the intra-abdominal pressure and by the force of gravity from above. This is just as much a hernia as any protrusion through a dilated inguinal or femoral canal in the anterior abdominal wall.

The Author

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While a hernia through the pelvic floor may, in rare instances, occur in a nullipara or even in a virgin, it is almost invariably due to traumatism in childbirth. The laceration usually involves the mucosa and therefore is visible but may damage only the deeper structures without tearing the mucosa. It may thus be impossible to estimate the real damage at the time and therefore the necessity for immediate repair is not apparent. This is particularly true in damage to the fascial supports of the bladder, rarely is the mucosa in this area torn. Lateral episiotomy, which is quite popular at present, is easy to perform and greatly facilitates delivery. It is not so easy to repair the damage properly and I am sure many women end up with a weaker pelvic floor after this operation than if it had not been done.

HERNIA OF THE PELVIC FLOOR

While the pelvic floor is the essential factor in preventing a descent or hernia of the pelvic viscera, there is a secondary series of supports at a higher level. These, for a variable time may hold the organs at their proper level even with a marked relaxation of the pelvic floor. They are the fascial and muscular structures constituting the uterine ligaments. The two main supporting ligaments are the coronary or lower part of the broad ligaments running from the lateral pelvic wall to the cervix and the uterosacral running from the cervix to the sacrum. The upper part of the broad ligament connecting the cornu and side of the uterus to the lateral pelvic wall prevents lateral deviations but probably has little

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value in holding the uterus up. The posterior fold of this is known as the infundibulo-pelvic ligament. The round ligaments run from the uterine cornua and so slightly forward that they can hardly be considered anterior ligaments unless their attachment to the anterior abdominal wall has been altered by operation.

When the pelvic floor is weakened, giving insufficient support, there is a tendency for the pelvic organs to descend or even protrude. An undue strain is now placed upon the secondary supports, the uterine ligaments. Bearing-down pain and dragging are often the result and the patient is apt to contract the levator ani unconsciously, which may help somewhat. This continuous use of the levator is very analogous to eye-strain and may produce identical distant reflexes. This tenseness may become such a habit that the patient cannot relax voluntarily, a matter of considerable importance since the degree of relaxation of the pelvic floor may not be apparent unless the patient be anesthetized. In spite of such accommodation by the patient, sooner or later, often after many years, the ligaments begin to yield. The cervix descends lower and lower until it may actually protrude from the vagina. The bladder, firmly attached to the cervix must descend with it, forming a cystocele. The anterior rectal wall, insufficiently supported by the impaired levator ani, bulges forward into the vagina forming a rectocele.

TYPES OF SUPPORTS

To compensate this relaxation of the pelvic floor and to relieve the strain upon the upper supports, anything that will plug the vaginal canal may suffice, even a cotton tampon or small rubber or glass ball. Far more satisfactory is a doughnut-shaped ring of solid soft rubber which I prefer, or of vulcanized rubber which is more durable but more difficult to introduce. Inflated rings are apt to lose their air and become wrinkled or collapsed. The simple shape of this doughnut type permits its easy removal by night, resting the vagina and lessening the chance of irritation.

The Gellhorn pessary is preferred by some. It is a concave disc of hard rubber or other plastic material lying crosswise in the vagina, blocking the outlet and supporting the bladder and cervix. On its lower surface is a bulbous projection to help maintain it in the transverse position and to facilitate its removal. The Menge pessary is a similar disc. Neither of these two types are as easy to remove or replace as the simple ring and both offer the objection that the tip of the cervix rests upon the surface of the ring and is therefore subjected to some friction which might cause irritation with the possibility of malignant change. With the doughnut ring the cervix lies within the central opening and the dangerous area immediately around the external os is free from any pressure.

Besides these simple types, pessaries of the Smith, Hodge, or Thomas patterns which will be described later may be useful for simple descensus as they maintain the cervix at its proper level.

The use of any of these supports presupposes a vagina wider above than the outlet so that the largest ring that will pass the outlet will lie loosely in the vagina above. After the menopause, in addition to the shrinkage of the uterus, there is often a contracture of the upper vagina so that it becomes funnel-shaped with the wide end below. With some narrow vaginas a very marked relaxation of the outlet may produce the same effect. In such cases none of the above rings will be retained and a cup-and-stem pessary, held in place by straps running through the stem and attached to a belt about the hips may be the only available support.

In some cases the levator ani may show less damage than the fascial supports of the bladder under the pubic arch. Cystocele is the common sequel, even with little descent of the cervix. While the rings already mentioned will prove helpful the Gehring pessary is also useful. It is really a Smith pessary with the posterior bow bent forward so that it lies in front of the cervix, thus supporting the cystocele, instead of behind the cervix in the posterior fornix.

DISPLACEMENTS OF THE UTERUS

So far we have discussed simple prolapse of the pelvic organs and the pessaries used in such cases. In addition we have displacements of the uterus, mainly retrodisplacements, which are often secondary to a relaxed outlet but which may occur with a perfectly normal pelvic floor.

The uterus lies normally in the midline anteroposteriorly, in an anteverted position, almost horizontally with the patient in the erect posture, the fundus behind the pubes and the cervix directed backward into the hollow of the sacrum. It should be freely movable in every direction and capable of adjusting its position, for instance with a full bladder. Lateral deviations are often seen but, per se, are of little importance. The uterus may be pushed to one side by a tumor mass or be drawn away from the midline by a contracture of the supports on that side following an inflammatory process.

Anteflexion is more a distortion of the uterus than a displacement, the organ as a whole lying in fairly normal position but with the corpus sharply flexed anteriorly on the cervix.

Posterior displacements are the most important in causing trouble and requiring treatment. A uterus with normal tone moves as a unit. If the fundus falls backward the cervix rotates forward, the uterus turning on an axis running transversely through the upper part of the cervix.

Given a uterus of normal size and tone and free of adhesions that might limit its mobility, if the cervix can be maintained in its normal posterior position and level, a retroversion would hardly be possible for there is not room for the fundus to pass backward between the cervix and the sacrum. With the uterus in normal position and the patient in the erect posture the downward pressure of the abdominal contents on the corpus uteri is greater than upon the smaller cervix, tending to maintain the uterus in normal anteversion resting upon the bladder. In the dorsal posture the uterus is in vertical position and if there be any descensus of the cervix it shows some anterior excursion as well. The fundus has then to move backward and is very apt to topple completely over into the cul-de-sac, the very inadequate round ligaments and the anterior part of the broad ligaments alone preventing such a displacement. In the dorsal posture the tendency of the normally topheavy uterus to fall backward is much increased postpartum or if it is enlarged by a persistent subinvolution, fibroids, etc.

The successful treatment of a retrodisplacement is dependent therefore upon maintaining the cervix posteriorly and at its proper level. For this purpose a Smith pessary, or the somewhat similar Hodge or Thomas types, is used. The sides of the pessary, converging anteriorly, rest upon the pelvic floor. The narrow anterior bow is bent slightly downward to avoid pressure on the urethra. The wide posterior bow extends upward and lies transversely behind the cervix in the posterior fornix and if this be normally capacious no part of the uterus need be in contact with the ring. The pessary holds up the vaginal vault and therefore the cervix which is attached to the vault. The cervix, directed backward, is suspended below the posterior bow. The ring must not fit tightly, the finger should easily pass between it and the vaginal wall.

SHAPE AND SIZE MUST BE VARIED

The shape and size of the pessary must be varied to suit the individual. They can be softened in boiling water, shaped appropriately and rehardened in cold water. In recent years the pessaries have been softer and more easily reshaped but are apt to slowly change their shape even at body temperature and may require remodelling after some months' use. In a virgin or nullipara a long narrow pessary with parallel sides is more easily introduced than the standard shape. The lift of the pessary, i. e., the angle between the sides and the posterior bow, requires wide variation. The narrow anterior bow of the Smith pessary may require widening, in fact even wider than the posterior bow, if the outlet is markedly relaxed or if there be a contracture of the upper vagina after the menopause or of congenital origin.

Which type of pessary shall we use in a given case? Both support the pelvic organs and prevent prolapse but the Smith type in addition is more apt to correct a retrodisplacement. The doughnut shaped ring will better support a cystocele or rectocele and is therefore well adapted in elderly patients past the menopause, in whom retrodisplacements are much less apt to cause symptoms. Prior to that time I believe that the great majority of such retrodisplacements produce symptoms, not necessarily local in character but often reflex disturbances in other locations such as headache, backache, gastrointestinal symptoms, etc. Howard Kelly says that all a pessary need to do is to take up the slack in a loose vagina and that correction of a coexistent retrodisplacement is unnecessary. This may be true after the menopause but before it the correction of the retrodisplacement is of the utmost importance.

Repeatedly I have been consulted by patients wearing pessaries that have given no relief, or even aggravated the symptoms. Examination has shown the exquisitely tender fundus back in the cul-de-sac. Replacement may cause considerable pain but it is often amazing to find the uterine tenderness almost completely disappear in a very few minutes after the womb is brought into normal position. Frequently the identical ring which previously had aggravated the symptoms now gave complete relief. The complaint of the patient that I had hurt her badly, whereas her former doctor had not caused her any pain, was pretty convincing proof that he had made no attempt to correct the displacement.

While the pressure of the posterior bow of the Smith pessary against the tender retroverted fundus may cause pain, it does not always do so and such a pessary may still give marked relief in some cases of adherent or irreplacable retroversion, probably by relieving the drag on the tender supporting ligaments. There are of course many retrodisplacements that cause no symptoms whatever but they certainly lessen the chances of pregnancy and greatly increase the incidence of miscarriage if gestation does occur.

Some patients develop symptoms with a very trifling degree of descensus. Many times, after a pessary has completely relieved symptoms, there has been some recurrence of the trouble after it has been worn for perhaps six months or more. The pessary is found to have flattened out and it allows a slight degree of descensus. Reshaping the pessary to raise the level of the uterus not more than a third or half an inch will again give complete relief. A similar recurrence of symptoms while wearing a ring may be due to a recurrence of a rigidity of the supporting structures. In such cases relief is best obtained by mobilizing the structures by massage, etc.

It is not always possible to select the proper shape or size of pessary at the first visit. Sometimes one has to use progressively larger sizes at succeeding visits. Conversely after the menopause, with its resulting vaginal contracture, smaller sizes may be required. This senile contracture occasionally may obviate the need for a pessary, but the prolapse is far more apt to increase with advancing years and the progressive weakening of the tissues.

Before a pessary is used for a displaced uterus the organ must be freely movable in every direction. If it be rigid it must be mobilized by appropriate measures such as massage in the knee-chest posture or bimanually, hot douches, etc. The massage may have to be done under anesthesia. Any existing vaginitis or cervicitis should be eliminated as far as possible before any ring be inserted. In retroversion cases the use of the knee-chest posture for a few minutes, night and morning for the first week after a pessary is inserted may help prevent the uterus falling backward. The patient should be shown how to remove the ring herself if it actually causes pain. If it be uncomfortable she is told to return at once, otherwise to come back in one or two weeks. If the condition is then satisfactory an examination is made in two months, then at four and after that at least every six months. If any unusual bleeding or discharge occur in the interval she should return at once. An antiseptic douche once or twice a week is helpful. Some patients will tolerate rings indefinitely with no tendency to irritation. With others the ring must be removed occasionally for a short time if the vagina begins to show any reaction. Very rarely a ring cannot be used at all on account of the inflammation it produces. After the menopause the vaginal mucosa becomes much thinner and rings are more apt to irritate. More frequent douches and the removal of the ring at night may help and the use of estrogen in suppositories or hypodermically may prove useful.

Pessaries may give relief even when there is no uterine displacement or relaxation of the pelvic floor. An occasional patient may have bearing down and dragging pelvic pain following a confinement and this may persist for months or even years. The most careful examination may fail to show any recognizable cause. A Smith pessary has given some of these complete relief.

After a retrodisplacement has been corrected by a ligament operation of the Gilliam type I have found that wearing a Smith pessary for a time will prove helpful by relieving any possible strain upon the newly transplanted ligaments until the local tenderness has disappeared.

In sterility cases associated with anteflexion a Smith pessary may straighten the flexion by carrying the cervix backward, so that it may lie in the "seminal pool."

When a stem pessary is used to straighten the anteflexed uterus, the cervix being the most fixed part is apt to remain in its former position while the more movable fundus is thrown backward. The axis of the uterus now may coincide with that of the vagina and the stem is very apt to be expelled. A Smith pessary will maintain the uterus in normal position and the stem will be far more apt to be retained.

A supporting pessary may relieve an undue strain upon the uterine ligaments from a too heavy uterus in subinvolution or in some fibromyomata, also when the ligaments are unduly hypersensitive from inflammatory processes or when they are rigid and painful, particularly in cases of endometriosis.

There is a popular belief, also held by some physicians, that rings cause cancer. Undoubtedly some cancers have been due to rings that were ill-fitting or worn too long. So far I have never seen such a case and with a properly fitting pessary there should be little liability to malignancy for the ring should come in contact only with the vaginal wall and primary cancer of this tissue is very rare. Cervical cancer usually develops in the immediate vicinity of the external os and in most cases this area does not touch the ring. Because a patient develops a cancer while wearing a ring it is no proof that the ring was to blame.

10515 Carnegie Ave.

Buerger's Disease

The great importance of complete abstinence from smoking is worth emphasizing. It has been shown repeatedly that patients who continue to smoke do not ordinarily improve as much as do patients who cease smoking. Dr. Allen, from Rochester, tells his patients, "You can have your legs or your tobacco, but not both." In a series of 1200 cases of this disease Dr. Samuel Silbert of Mount Sinai Hospital, New York, did not find a single typical and unquestioned case in a non-smoker. Patients who continue to smoke are difficult to treat, and frequently the condition progresses in spite of treatment. Recurrences of symptoms is the rule when patients who have been in excellent condition for many years again resume the use of tobacco. It is understood that smoking will produce Buerger's disease only in those individuals who have a constitutional susceptibility to tobacco. Unfortunately it is not possible to determine by any test whether or not a person is susceptible.—Robert Harrison Owen, M.D., Canton, N. C.; N. Carolina M. Jour., Vol. 3, No. 10, October, 1942.

Prophylaxis In Pertussis

CHAUNCEY W. WYCKOFF, M.D.

As a little preface to what I have to say on this subject, let me state that I have consulted rather thoroughly the literature on whooping cough prophylaxis, including what various authoritative bacteriologists and serologists and clinicians have done in this country and Canada and England and naturally include my own experience with whooping cough.

Vital statistics inform us that 78 per cent of the adult population of the United States have had pertussis some time in their lives. Of 42,655 deaths from whooping cough in six consecutive years in the United States, 75 per cent occurred before the end of the second year of life. In a health statistic report by our Ohio State Public Health Department, there is given for a ten-year period (that is 1919 to 1929) 6000 deaths from pertussis, which exceeds by a great margin the same decade's deaths from diphtheria, measles, and scarlet fever.

MORTALITY RATES

It is a long well-known fact that all methods of therapy in the treatment of pertussis are most disappointing, have but slight influence on the symptoms, and no influence on the usual six to twelve week course, and no influence on the mortality. The mortality rate in the city of Cleveland from 1909 to 1940, inclusive, has run from 17½ per cent to 1 percent. The number of cases reported in the individual years have run from 470 in 1910 to 4553 in 1932. The average number of cases a year for the past decade averages about 2500, with a population averaging 885,000. This is fairly typical of the country at large.

The disease is a very serious accident below the age of four months. Here the mortality is not only extremely high but those who recover are affected nutritionally and constitutionally for months afterward. After this age, the death rate declines rapidly. During the run-about age from 15 to 36 months, the disease is a nightmare for both child and parent, and serious complications often occur. After this age, the seriousness practically ceases, but any physician who has children of his own knows that pertussis at any age is a most detestable disease and is as physically wearing on the parent as on the child. It is only when one has been in private practice for many years that it is realized that the disease attacks the parent much more commonly than is supposed. Persons 50 years of age or older have always been known to be more or less susceptible and the 70 year oldsters seem to be very susceptible even though they have had an attack in early childhood. It has been my experience over my 30 years of practice that a child who has had whooping cough before the age of two years is very apt to lose its immunity and acquire the disease in the later years of childhood but in milder form. Pertussis, I believe, more than any other contagious disease fails to confer a life-long immunity. Also like the other contagious diseases, pertussis of today is not nearly as severe as about 1925 and nothing to be compared with about 1910. Likely, this means the infectious agent is either becoming less powerful or the human body is more resistant because of improved nutrition, better living conditions, improved health codes, a better informed public on the nature and prevention of contagious diseases.

The Author

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PREVENTIVE INOCULATION

Ever since the identification of Haemophilus Pertussis by Bordet Gengou in 1909, research has been diligently made to prepare a preventive inoculation against whooping cough. For a dozen years or more, a stock pertussis vaccine was used with little or no preventive success or therapeutic success. It was not realized at the time that only Phase I of H. Pertussis was of any value for potency. Then various serums were advocated. Bordet introduced a pertussis antitoxin but shortly discontinued its use because of questionable therapeutic value and the hazard of anaphylaxis. Degkwitz found the blood or serum of convalescents or of immune adults disappointing as a curative agent. He likely was the first to recommend the injection of liberal amounts of human convalescent serum in the incubation and early catarrhal stage in infants.

In 1935 Bradford reviewed the literature on the use of convalescent serum and adult blood in a very thorough manner. Up to 1935, no sizeable series of cases were treated with large doses of serum. In his series of 44 cases of intimate

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Submitted October 8, 1942.

contact, 17 were given prophylactic vaccine therapy with no modification of their attacks. The other 27 were given 20 cc. of whole blood or 10 cc. serum prepared in the eighth week of convalescence. Fifteen of the 27 developed regular cases of whooping cough, 10 ran a mild course, two did not contract it. Of his 20 controls, all contracted regular cases. Later in 1936 he again reported similar results from 25 cases.

TIME OF CHOICE FOR INOCULATION

Meader's 115 cases of serum treatment is the largest yet recorded. He recommends to inject after exposure two 10 cc. serum doses, five to seven days apart. The most potent serum is obtained from a convalescent six to eight weeks after the disease has come to a standstill. This apparently is the stage of highest immunity. The complement fixation tests at this period in cases examined by Cohen and Lapin were found to be most markedly positive.

Bradford and Singer Brooks have shown that convalescent serum definitely increased the phagocytosis of B. Pertussis. Thus as in the case of the sulfa drug therapy there is no direct bactericidal effect but the opsonocytophagic power of the leukocyte is increased. The protection from serum does not last longer than three weeks, an important point to remember.

Cohen and Lapin reported in American Journal of Pediatrics, in December, 1940, a group of 33 cases all under six years of age. These were given 15 to 40 cc. of convalescent serum intramuscularly, the age determined the dosage. Thirty of these cases had had intimate exposure. Only five contracted pertussis and ran very mild courses.

The time of choice for the serum inoculation is immediately if there has been an exposure to a suspected case of pertussis and to repeat the dose in a week or two when diagnosis is positive. As you all know, it may require two weeks or more to make a diagnosis. White blood count increase or lymphocytosis is not present before this time. The cough plate method of diagnosis is the only means available in the early stage of whooping cough and even this is not infallible. It is during the acute catarrhal stage of the first two weeks of whooping cough that the bacilli are disseminated in greatest profusion. After the fourth week it is about impossible to secure a positive cough plate. In this connection comes the question, how long might a case of whooping cough be contagious? In the experience of most clinicians, myself included, one should consider a case contagious as long as a severe cough persists whether this is four weeks or four months, and such children should be kept isolated. If, as is so often the case, the physician is not consulted as to preventive measures in an exposed child until the child who has it starts whooping, it is then better to wait until the end of the two week incubation period or even in the early catarrhal stage, although the results are not as beneficial.

I. H. MacLean, reporting in the British Medical Journal on a whooping cough epidemic in 1937, found positive plates in 90 percent of the cases examined during the catarrhal stage; thereafter the percentage dropped steadily until in the third week of the disease only 50 percent were positive, and at end of fourth week none were positive. In any instance where a newborn or an infant under six months of age is concerned, an early correct clinical diagnosis of pertussis is extremely important.

In these latter days when inoculated children may run very mild atypical courses, or when we have so many acute infections of the laryngotracheal region due to the influenzal bacillus or a form of streptococcus which produce about the same symptoms as pertussis, even to a modified whoop, one must be constantly on guard and not fail to use the cough plate for diagnosis or if this is not practical, to have the unexposed infants absolutely isolated in the home or give the convalescent serum.

PERTUSSIS PROPHYLACTIC RESEARCH

The next step in the research for a pertussis prophylactic remedy was the work on and the production of an antigen by Krueger. Generally speaking, Mac Lean states that no chemically altered vaccine is as effective as a simple suspension of killed bacteria. The simple suspension of killed Phase I H. Pertussis is the only antigen so far to prove of value in recent experiments. It has been argued that if antigens were in solution they must be more effective and much effort has been expended to find a pertussis antigen which would be more quickly assimilated into the blood stream. It is claimed by both Mac Lean and Sauer that Phase I strains of H. Pertussis elaborate a toxic substance not a true exotoxin in that it is not antigenic. This toxic substance and most other chemical extracts or fractions of the organism are unstable and easily destroyed during their preparation, thereby incapable of causing a solid immunity. The undenatured bacterial antigen of Krueger's, produced in 1933, and at first accepted by us all, has been shown by Lawson experimentally and Singer Brooks clinically to exert no influence prophylactically. This antigen was derived from the supernatant fluid of pertussis bacilli which were mechanically triturated.

Another product for topical use in the nose was produced some three years ago by a large biological concern. This is Topogen. It is the same antigen and has already fallen by the wayside.

Now let us consider the work done and the results obtained in the past decade with the fresh H. Pertussis vaccine. All authorities are agreed that Phase I growth of H. Pertussis is the only stage which produces a potent vaccine. Mac Lean claims that the prophylactic dose by all investigators is much too large. This varies from 120,000 million by Silverthorne of Canada to 80,000 million advocated by Sauer. Mac Lean's dose is 16,000 million. His argument at least merits our consideration. He claims the vaccine is not at fault but it is the method of application in relation to the induction of immunity which has not received due consideration. Individuals differ so much in their powers to produce their immunity and retain it, that naturally there is no prophylactic method of immunization which can supply protection in all cases. Various doses will give good protection. He argues that mere quantitative increase of any dose will not substantially raise the percentage of children protected. This point is contradicted by Sauer and Silverthorne who have been able to show rather conclusively that larger doses are more protective and especially for older children. However, even these two latter men must admit that it is the individual blood mechanism which finally produces the anti-bodies and only a small portion of any autogenic substance should be necessary to start up in the blood stream the necessary manufacture. Mac Lean states further that these very large doses of vaccine induce too much strain on the body processes of immunization of the young children and this may partially account for the delay of immunity up to four months which time is claimed by Sauer for complete protection.

PROPHYLACTIC INOCULATION

In prophylactic inoculation the primary dose need not be more than the amount necessary to start the child's immunizing mechanism and prepare it to respond quickly to a later stimulus either the infection itself or another dose of vaccine. The time interval, in order to get the best results, between doses of prophylactic vaccine or toxoids, seems to vary considerably, depending on the nature of the micro-organism and the nature of the antigen. In the case of anti-typhoid inoculation, a week or ten day interval is ample to induce good immunity, but in the cases of diphtheria toxoid and tetanus toxoid, the most effective interval between doses has been found to be one or two months. Toxoids appear to be slow immunizers. Likewise, it has been found that pertussis vaccine is a slow immunizer and all investigators are now of the opinion that the best protection and a lessened general reaction at the time of inoculation is secured if one allows an interval of three to four weeks between doses. In the early days of this investigative work, the prophylactic vaccine was given to new born infants in foundling homes, in view of the fact that pertussis is such a dangerous disease for young infants. The results were very disappointing as these infants did not resist the disease when exposed, hence this is not now recommended, the conclusion being that in young infants under eight months, the immunizing mechanism is not sufficiently active enough to function with any certain degree of success. The concensus of opinion of all the bacteriologists and clinicians working in this field is that children will respond well to the pertussis immunization process from the age of eight months to eight years, but eight months is the recommended age. Reactions to the vaccine are more marked in older children.

DOSAGE

As to the question of dosage—contrary to Mac Lean's word of caution, the accepted total amount is 80,000 million H. Pertussis Bacilli in 8 cc. of solution. About one year ago, Sauer introduced the double strength vaccine with the recommendation that the three doses now be 1 cc., 1.5 cc., and 1.5 cc. to children under the age of two years, but over this age to give 1 cc., 2 cc. and 2 cc. Because of more severe reactions following this double strength, still another vaccine strength has been made, using 15,000 million bacilli to the cc. instead of 20,000. The resulting reactions are much more mild. This latter strength dose is 1 cc., then 2 cc., then 4 cc., divided between the two arms.

The first inoculation is best given in the deltoid region of the left arm, the second dose in the deltoid region of the right arm, and the third dose in the triceps region of each arm. As a word of caution never fail to have the child held on the lap of the attendant and to see that the arm not being inoculated is also securely held down. In that manner, you are not as likely to leave a broken needle in the arm. Use no more than a 27 gauge hypo needle and be certain each time that the point is sharp. The inoculation is less painful if not given intramuscularly and just as well absorbed. It is better to give just underneath the skin but superficial enough to leave a blanched area at the site of the inoculation, and do not massage the area afterward as in this manner the local reaction is made worse. The site is thoroughly cleansed beforehand with alcohol. A small indurated mass the size of a five cent piece may persist at the inoculation site for weeks, but there is never any abscess formation if your technique is perfect.

The parent should always be informed that the injection may be attended by a slight local reaction and a slight rise of temperature, but this will all subside in 24 to 48 hours. Often, too, the child's appetite is lessened and disposition irritated for several days. Prescribe no treatment, either local or general, for such reactions except a little aspirin. Remember also to state that it will require about four months for the immunity to be complete, and, if after two years the child has a known intimate exposure, it would be advisable to give another dose of 2 cc. of vaccine to further stimulate the formation of antibodies. This may or may not be necessary, but according to Sauer and others it is a little extra precaution and can do no harm.

In the production of the Sauer Prophylactic Pertussis Vaccine, the cultures used are isolated at the Evanston Hospital. Each lot is an approximately equal mixture of at least five distinct cultures of Hemophilus Pertussis Bacillus. No lot is ever released unless tests at the hospital show it to be pure and sterile and of proper concentration.

Two of our large biological firms in the United States are given these cultures. I think the profession and the laity also are fortunate to have such cooperation. It increases our confidence in the product.

EFFECTIVENESS OF VACCINE

The expiration date on a package of the vaccine has now been extended to one year. But at all times, it must be kept refrigerated, 35° to 50° Fahrenheit. It has been found that ordinary room temperatures cause rapid deterioration in the potency of the vaccine. Before using, the bottle should be vigorously agitated. After the vaccine is in the syringe it may be warmed for a minute between the palms before injecting.

As to the effectiveness of this whooping cough prophylactic vaccine, there is no doubt in the minds of the pediatricians the country over that it is most successful. Even if a small percentage of the inoculated do contract whooping cough, it is practically always atypical and mild and very difficult to diagnose.

Sauer and the other workers all claim that at least 90 percent of their children inoculated have not contracted pertussis even after intimate contact. These observations have now been made over a period of 10 years, using children well up into the thousands in numbers and making carefully controlled experiments with intimate exposures, prolonged exposures, and always using a comparable control group. This work is too convincing for any counter-argument to deny. Evidently the reason for the comparative failure of one group of workers reporting in 1936 and 1939 was the fact that their vaccine was washed and so must have lost a goodly portion of some important immunization substance. As all the other workers using vaccine prepared by the Sauer method have reported notable success. Nearly all investigators agree on the need of freshly isolated cultures of Phase I H. Pertussis bacillus grown on human blood agar and not washed. Toomey found freshly isolated cultures grown and transplanted for two years on Bordet Gengou medium enriched with human blood, to be virulent for animals. When adapted to veal brain agar he found their ability to agglutinate freshly isolated bacilli was lost, indicating that after being acclimated to media without human blood their virulence diminished.

Silverthorne of Canada did some interesting work in this line on mice, calling it the Mouse Protection Test, which is interesting and very convincing. Mice were previously vaccinated with fresh strain vaccine in four doses at five-day intervals and after two weeks were given a fifth dose. Then two weeks later were given an intraperitoneal in 50 percent Mucin. These mice survived. But the control mice and those vaccinated with stock strain vaccine or various pertussis antigens died after the intraperitoneal injections, of septicemia.

J. G. Kramer, observing an outbreak of whooping cough in an orphanage in 1937, reported that after continued and intimate exposure of the vaccinated group, some members developed mild attacks similar to those in the children who had previously had pertussis and had contracted it again in this outbreak. His unvaccinated group developed typical whooping cough. His conclusion is that the vaccine produces as good an immunity as a previous attack of the disease. That neither is absolute and their immunity can be broken down after continued intimate exposure. Faber also stresses the fact that protection is not absolute even in the groups who acquire the disease.

Singer Brooks has also noted second attacks of pertussis, as has any clinician who has been practicing long enough. This, of course, is quite contrary to the accepted belief that one attack confers lifelong immunity. The communicability rate has been found by Singer-Brooks in a 36 months study to be 16.6 percent in a vaccinated group of 272 children as compared with a rate of 87.2 percent in a control group of 256 children. Later in a 45 months study report, she found a rate of 7.8 percent in 330 vaccinated as compared with 97.7 percent in 200 unvaccinated. These rates vary with different workers, but the average rate is cut down by at least 70 percent in the vaccinated children. The incidence of children exposed to whooping cough is about 70 percent, so that from 25 to 30 percent of all children are immune by nature.

In Los Angeles, 97 pediatricians were sent questionnaires as to how many gave the vaccine and what the results were. Forty-seven replies. The total number children immunized was 10,514. There were an estimated 207 cases of pertussis in this immunized group; some physicians claimed only 1 percent contracted the disease, others claimed up to 15 percent. But all said the cases were much milder.

Garvin published a very noteworthy article in July, 1940, on comparison of the incidence of preschool pertussis in a city with a high and in one with a low percentage of immunization. This covered a period of 11 years, and in the city with the low immunization, there were unquestionably many unreported cases of pertussis. In this city only about 10 percent of the children were protected while in the other city at least 75 percent were immunized. The yearly average incidence (per 100,000 pop.) of pertussis in children under five years showed a decrease of only 10.7 percent in low percent protection city, while the decrease in the other city was 83.4 percent. As to my own experience, I started the use of the vaccine in 1935 and have adhered strictly to Sauer's words of caution as to dosage, time interval between doses and refrigeration. Six hundred and thirty children have been immunized. I do not know how many have been exposed since being protected but I do know that only 20 of these children have developed whooping cough and all were very mild.

The United States Public Health Service in its Public Health Report issue of August, 1941, gives a brief review by Harrison of a study carried on for 34 months in Norfolk, Virginia. There were 493 vaccinated children under six years and 432 controls. Two 1 cc. doses were given four weeks apart of Alum precipitated unwashed pertussis vaccine, 10 billion bacilli to 1 cc. The Sauer method of vaccine preparation was used except for its being Alum precipitated. The conclusion was that: the two 1 cc. doses of alum precipitated pertussis vaccine injected at a four-week space between, conferred real protection against pertussis in a large proportion of the group. Further studies are being made by Harrison and later reports will follow. Undoubtedly in the near future, the Public Health Departments throughout the country will include pertussis immunization along with diphtheria and smallpox.

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Urological Trends

The sulfa drugs, while extensively used, too often cause hematuria calculus formation, anuria and death. The indiscriminate use of the drugs is strongly opposed. While sulfadiazine is reported to give less renal complication than the other sulfa drugs, a blood level from its use of 12 milligrams per cent may cause death. On the other hand, Dr. Jeck of New York reported the recovery of a patient who had a blood level of 23.2 milligrams per cent and a non protein nitrogen of 180 milligrams per 100 cc. of blood. Care should be used in prescribing the sulfa drugs to patients who have one or more kidney stones, because the sulfa crystals, when formed in the kidney are prone to become adherent to the stone, thus increasing the size of the stone. Dr. Hamer of Indianapolis suggests the use of Möller's sodium lactate 5% solution given intravenously, one cc. per kilogram of body weight, as an aid to renal secretion in complications resulting in the use of the sulfa drugs.—Conn. S.M. Jour., Vol. VI, No. 10, October, 1942.

Immediate Postoperative Feeding in Abdominal Surgery

The belief has long been held that food would not be tolerated by the gastro-intestinal tract soon after anesthesia and operation. It has further been believed that decomposition of food during digestion would cause distention by the gas thus produced. For these reasons patients have routinely received fluids for two to four days and then a light diet. The result has been too often discomfiture, followed by difficulty in beginning a soft diet.

Non-gas-forming food may be given in small amounts immediately following return to consciousness. Orange or fruit juices, milk, broths, and cellulose foods are to be avoided completely. Broths and other liquids admit a large amount of air during swallowing and their consistency encourages diffusion of blood gases into the intestine.

The following regimen has been effective:

1. Upon return to consciousness the patient receives sips of water or tea after nausea has ceased. If this causes a return of nausea, cracked ice is substituted. If the patient vomits once or twice, the fluid is stopped, but the patient is encouraged to try again later.

2. Six to twelve hours following operation two or three crackers with sips of water just sufficient to aid in swallowing are given. Chewing gum has been advocated by some. These substances cause secretion by the salivary glands, which sets up peristalsis. The bolus formed by the crackers is carried down, digestion begins, and intestinal activity starts anew, without too much material at one time to reverse the process.

3. The next morning a soft, solid diet is started. No milk, orange juice, broths, or carbonated beverages are allowed. The patient is urged to eat but not to force the food. A few minutes used to explain the importance of eating usually results in whole-hearted cooperation. Dry toast, cooked cereal, potatoes, rice, soft boiled eggs and gelatin are palatable and are not offensive as gas formers. Halperin found that 25 per cent of his patients on a straight protein diet vomited immediately following the meal. Riggle allowed his patients a wider variety, including milk, with over 75 per cent experiencing some distention or gas pains. No effort was made in this series to select food-stuffs for nutritional value.

4. On the third postoperative day an unrestricted soft diet is instituted. An enema is given that afternoon, followed by a mild cathartic. Mahoney and Riggle both gave mineral oil from the first postoperative day. This procedure seems to have little advantage, and there is more danger of causing nausea.—Alexander Webb, Jr., M.D., Raleigh; N. Carolina M. Jour., Vol. 3, No. 10, October, 1942.

Essential Hypertension: Observations and Correlation Of Some Significant Factors

DONALD E. YOCHEM, M.D.

ESSENTIAL hypertension is a major problem encountered in clinical and life insurance medicine. The latter is chiefly concerned with insurability and is constantly striving to evaluate, classify and predict life insurance in questionable or actual cases of this disturbance, whereas clinical medicine is largely concerned with the task of preventive medicine and treatment. Although the channels of primary interest and viewpoint may not be identical, the increasing death rate due to this entity justifies more correlation of the studies and experiences in both of these fields of medicine in order to advance our knowledge of this problem.

To quote Fahr,[1] "the appalling death rate associated with essential hypertension is just beginning to draw on the medical public." This statement was paraphrased by Lovelace[2] who said: "the appalling death rate associated with essential hypertension has just recently begun to draw on medical directors of life insurance companies." He further states that high blood pressure is an entity which is the fountain source from which springs about one-half of our cardiovascular death claims, amounting in dollars to something more than one-sixth of our total mortality.

As reported by Thornton[3] and others, mortality experience in life insurance companies reveals a serious increase in the death rate due to arteriosclerosis, particularly in relation to cerebral hemorrhage and organic heart disease. This unwelcome fact is also well recognized in clinical medicine.

Judging from the excessive mortality, it appears that blood pressure abnormalties have been treated somewhat leniently in the past, and probably slight degrees of hypertension which were formerly regarded as normal, must now be considered seriously if more favorable mortality experience and effective preventive measures are to be expected.

In addition to reviewing some clinical and life insurance studies and reports on blood pressure, it is the purpose of this article to correlate certain factors involved for a better understanding of hypertension, and to contribute some additional data and observations to this deserving problem.

Yates, quoted from Bell,[4] states that essential hypertension comprises 95 percent of all cases of high blood pressure and that the cause still remains unknown. According to Goodridge,[5] this disturbance is a definite clinical entity in which increased blood pressure is the primary or essential early finding, and that the chief distinguishing factor which serves to differentiate this type of hypertension from other types is adequate renal function; and that pathological changes characteristically involving the arteries and arterioles develop later as a result secondary to the mechanical factors which produce the elevated blood pressure. Even though Goldblatt[6] indicates that his investigations show essential hypertension to be of renal origin, he does not believe that all cases are of that origin; and states that there can be hypertension on a psychogenic basis, or from central nervous system disturbance acting upon the vasomotor mechanism to bring about peripheral vasospasm to produce hypertension, as well as other cases developing from endocrinogenic origin. He further believes that the arteriosclerosis is primary and that the hypertension follows.

The Author

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Lovelace[2] states that "we can always remember that a history of high blood pressure is of much more importance in middle life than a history of pulmonary tuberculosis, assuming normal findings on physical examination, in both cases. We can also keep in mind the fact that essential hypertension has strong familial tendencies, and that family histories of non-rheumatic and non-syphilitic heart disease are perhaps of much greater moment than family histories of tuberculosis."

In many instances hypertension and arteriosclerosis may be associated but the preponderance of opinion would seem to indicate that the arteriosclerosis is the result of the hypertension rather than the cause in these cases. Although the etiology of essential hypertension remains unsettled, considerable progress has been made and it appears that the abundance of constantly accumulating data and studies on this subject will add more to our knowledge in the future.

Schroeder and Steele[7] have clasified the causes of elevated blood pressure into five main groups: renal, endocrine, vascular lesions, central nervous system diseases, and essential hypertension of unknown origin.

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According to Ayman,[8] a clear understanding of any blood pressure study necessitates a knowledge of two fundamentals: the selection of normal standards and the variability of the blood pressure. He states that "From minute to minute the hypertensive patient shows widely varying blood pressure, depending greatly on his physical and psychic stimuli." Further, "These observations have a definite practical value. Whenever a physical or psychic relaxation occurs there is found, among other things, a lowering of the blood pressure. This is especially important, as has been shown, in considering the blood pressure in hypertensive disease. Failure to apprecite this fact fully must cause some insurance companies to accept many early hypertensive patients." He concluded that the instability of the blood pressure in essential hypertension will often lead to normal readings of the blood pressure if the patient sits quiet from five to twenty minutes. This occurs even in patients with widespread vascular changes.

From the standpoint of preventive medicine and insurability, the chief virtue is the recognition of the so-called pre-hypertensive state which may be present for a considerable time before any demonstrable pathological changes have taken place in the heart or other structures. If there is evidence of pathological changes, as reflected in the electrocardiogram, cardiac enlargement or other arterial damage, the disease has probably been present for some time and the early or pre-hypertensive phase has passed. Since the disease may exist for many years and be discovered only by accident in the course of an insurance or routine examination, or after cerebral hemorrhage or cardiac insufficiency develops, it is all the more important to attempt to arrive at an early diagnosis in any suspected case in order to utilize every preventive measure possible to prolong life.

Since increased blood pressure is the only or primary early clinical finding in this disturbance, it becomes apparent that the chief consideration is that of acceptable normal standards, and acceptable normal variation of either the systolic or diastolic blood pressure above these standards, in order to establish some consistent basis for evaluation of any given case.

There is considerable controversy over the relative importance of the systolic and diastolic pressures in the pre-hypertensive as well as in the individual with the active disease. Clinically, it is my impression that the diastolic pressure does not fluctuate proportionately as widely as the systolic pressure in the majority of pre-hypertensive or normal individuals. A great many of these pre-hypertensive cases will show a marked variation of the systolic blood pressure above normal, whereas the diastolic pressure will remain within reasonably normal limits. In these cases where the diastolic pressure also fluctuates widely, rising above normal levels, I believe it is all the more certain that we are dealing with a more serious case of potential or early actual case of this entity, regardless of the circumstances under which the pressures were obtained. Pathologically, this would seem to be substantiated by Goldblatt[6] whose quotation follows: "As a pathologist, my impression is that the diastolic elevation is of definitely greater significance, because the determination of cardiac hypertrophy is conditioned more by that phase of the elevated blood pressure. We see, not rarely, individuals with considerable elevation of systolic blood pressure for a long period of time, but without corresponding elevation of the diastolic, who at autopsy show no considerable degree of hypertrophy of the heart. That is particularly true in the aged who, with their rigid large vessels, particularly the aorta, may have a considerable elevation of the systolic blood pressure, no significant elevation of diastolic blood pressure, and a relatively small heart."

Hines and Brown,[9] using the cold test, observed greater systolic than diastolic fluctuations in both normal and hypertensive individuals, and found that the mean increase in the systolic blood pressure was considerably more than the mean diastolic increase in the hypertensive types as compared to the normal responses.

Ayman[10] observed 76 patients with essential hypertension from two months to two years, taking the blood pressure at intervals of 5 to 45 minutes on each visit, and found individual variations, without rest, had a diastolic variation of from 5 mm. to 66 mm. of mercury, with the average for the group to be 30 mm. He also found that the higher the systolic blood pressure the greater was the total diastolic fluctuation in these patients. The effect of rest on the total variation of diastolic blood pressure ranged from 8 mm. to 70 mm. with an average of 37 mm. He concluded that in essential hypertension the fluctuation of the diastolic blood pressure was as great as that of the systolic blood pressure.

TABLE 1

Average Variations of Blood Pressure Based on 250,000 Determinations (After Hunter and Frost)

Age	Systolic	Diastolic
10	103	70
15	113	75
20	120	80
25	122	81
30	123	82
35	124	83
40	126	84
45	128	85
50	130	86
55	132	87
60	135	89

According to Ayman,[8] a variation of more than 10 mm. of mercury above the figures of Hunter and Frost [11] (Table 1) is considered pathological, for "it has been shown that such increases in blood pressure above the quoted average levels are accompanied by increased mortality."

In the convincing study of Robinson,[12] he found that more than two-thirds of all male and female blood pressures were below 125 mm. of mercury systolic and 80 mm. diastolic. He states that there is a large body of evidence accumulating that points to the recognition of 140 mm. systolic and 90 mm. diastolic as an upper limit, whereas mortality studies have shown conclusively that pressures above 140/90 mm. are definitely inconsistent with a normal life span.

The Joint Committee of the Association of Life Insurance Medical Directors and the Actuarial Society of America[13] published an analysis of a large experience in blood pressure. This study shows that a low diastolic results in a favorable mortality. The investigation further indicates that a relatively small elevation in the systolic above the average blood pressure results in an increased mortality, and that when the systolic ranges between 148-157, and the diastolic 94-98 at age 40 to 49, the mortality is twice normal.

The blood pressure determinations in my investigation were made according to the recommendations of the American Heart Association.[14] All diastolic readings recorded are those at which the sounds completely disappear and is commonly known as the fifth "phase", but should more correctly be called the fifth "point". When the diastolic sounds became dull and muffled and there was no distinction between that "point" and the one at which the sound completely disappeared, the reading on the manometer was recorded at that level.

The average systolic and diastolic blood pressure for the various age groups was based on determinations of 1200 non-hypertensive individuals who did not show any evidence of hypertension, based on careful urinalysis, history, cardiac and blood pressure studies.

About 65 percent of this group were females and 35 percent males, and the occupation was almost entirely clerical and executive. The number of individuals in each age group was proportionately representative of the entire group, but with a higher percentage in the lower age brackets. The results of these observations are recorded in Table 2.

TABLE 2

Average Systolic and Diastolic Blood Pressure in Mm. of Mercury for Various Age Groups Based on Determinations of 1,200 Non-Hypertensive Individuals

Age Group	Systolic	Diastolic
17-19	113	70
20-29	114	73
30-39	116	75
40-49	121	78
50-60	123	82

An investigation of the systolic and diastolic blood pressure variations was conducted on 300 non-hypertensive individuals. This study covered a period of nearly two years in most individuals in which several readings were determined. Most of these were selected from the groups in Table 2 and the pressure increases represent a deviation from the basic pressure in each individual. These determinations include fluctuations which occurred under variable conditions of examination such as allowing no rest as compared with 5 to 20 minutes rest, as well as fluctuations occurring from one to nearly two years. It was significant to note that in none of these cases did the systolic or diastolic blood pressure exceed the level of more than 10 mm. of mercury above those of the age groups as given by Hunter and Frost.[11] It was found that when the systolic pressure rose to 12 to 14 mm., which was the highest fluctuation above the basic level, the pressure was still within the accepted normal range of that recommended by Ayman[8] in his study. Likewise, where the diastolic pressure rose as high as 10 mm. of mercury above the basic level, the pressure was still within that "normal" range.

This study of the systolic and diastolic blood pressure variations in mm. of mercury of the 300 non-hypertensive individuals revealed the following:

(1) 82% of the group systolic variations and 92% of the group diastolic variations were in the 2 mm. to 6 mm. range.

(2) 9% of the group systolic variations and 8% of the group diastolic variations were in the 8 mm. to 10 mm. range.

(3) 9% of the group systolic variations and none of the group diastolic variations were in the 12 mm. to 14 mm. range.

(4) The maximum individual systolic variation was 14 mm. in 3% of the 12 mm. to 14 mm. range group.

(5) The maximum individual diastolic variation was 10 mm. in 4% of the 8 mm. to 10 mm. range group.

These observations confirm the investigations of the studies which tend to accept the lower blood pressure levels as normal averages, and substantiate the clinical opinion that the blood pressure of normal individuals does not fluctuate widely above these normal averages.

It is significant to note the systolic and diastolic variations in this study as compared with the variations obtained by Hines and Brown[9] with the cold test. In their study, using the cold stimulation test, the group of non-hypertensives had an average systolic response of 8.8 mm. of mercury rise and 7.93 mm. diastolic rise. The range was 5 to 15 mm. systolic and 5 to 12 mm. diastolic. Those measuring as high as 15 mm. were considered normal by the investigators. The abnormal responses in the hypertensive types gave a mean increase of 34.5 mm. of mercury systolic and 23.2 mm. diastolic. The range was from 20 mm. to 90 mm. in systolic pressure and 15 to 65 mm. in the diastolic pressure.

Hines and Brown[9] further observed by hourly blood pressure checks that controlled mental and physical rest has a depressor effect on both the magnitude of the fluctuations and on the mean levels of systolic and diastolic pressures in cases of essential hypertension.

In a study of impairment found among 10,000 unselected examinees,[15] it was found that the average blood pressure of women is significantly lower than the average for men up to about 40 years of age, but that after that time the average for women becomes somewhat higher. At ages 40-49 the average pressure for men was 126/80 mm. of mercury and for women 128/80 mm. of mercury, but at ages 50-59 the average male pressure was 134/84 as compared to 142/87 for females.

Although hypertension is apparently more common in the obese and overweight individuals it does not respect the underweight or persons of spare build. The study of Short[16] shows the effect of increasing weight in producing higher blood pressure as well as reductions in weight substantially reducing blood pressures. He reveals that the blood pressure differences between overweight, "normal" weight, and underweight are greater from ages 30 to 50 than the years preceding; and that it appears that the duration of obesity is of paramount importance as a factor in the establishment of hypertension.

The study of body build and hypertension by Robinson and Brucer[17] classified males and females into linear or narrow chested and lateral or broad chested groups, using an anthropometric index obtained by dividing the chest circumference by height. The body weight was not considered as a factor in the study. Those considered as linear build had a chest/height ratio of less than 0.50 whereas the lateral build group averages an index of 0.59 or over.

Males with chest/height ratios of 0.47 and less (linear build) had an average of 114 mm. of mercury systolic and an average of 70 mm. diastolic. The systolic pressure for the average lateral type male was as high as 130 mm. systolic and 79 mm. diastolic. This same trend was also observed in females.

In the linear group of males 4 percent had systolic pressures exceeding 140 mm. of mercury, whereas hypertension was found in 22 percent of the males in the lateral build group. In the linear group of females 2 percent and the lateral group 27 percent had systolic pressures exceeding 140 mm. The trend of the diastolic pressures was similar.

The expectancy of systolic hypertension in males was more than four times greater in the lateral than in the linear group, the diastolic hypertension was seven times greater in the lateral group. Eleven times greater systolic and eight times greater diastolic hypertension expectancy was found in females of lateral build. Both males and females of lateral build had higher pressures than those of linear build at all age levels.

Based on this correlation of pressures with build, Robinson and Brucer[17] consider that the hereditary predisposition to normal blood pressure and hypertension actually exists. It is generally recognized that heredity has some influence on the incidence of this disease, for so frequently a family history of hypertensive cardiovascular-renal pathology is present in these individuals. The comprehensive studies and data on the occurrence of this disturbance presented by Pearl[18] establishes a reasonable presumption that the innate biological constitution or familial factor plays an important role in the etiology of this entity.

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Dr. George Smith of Boston reported that anuria following irradiation for treatment of cancer of the cervix was more likely to occur after the use of radium than of X-ray. When anuria does occur following irradiation, bilateral nephrostomy for a year may prevent death from uremia due to edema of the lower ureters. To give sufficient dosage to control the malignancy without injury to the ureter is still a "math" problem.—Conn. S.M. Jour., Vol. VI., No. 10, October, 1942.

The Importance of Cobalt in Nutrition

JONATHAN FORMAN, B.A., M.D.

IN VIRGIN SOIL there are some score of mineral elements. Those mineral salts whose importance to animal nutrition is unquestioned, include sodium, potassium, calcium, magnesium, chlorine, iodine, phosphorus, sulphur, iron, manganese, copper, zinc, and cobalt.

Recently cobalt has been found to be indispensable to nutrition, by the help it gives in making blood and in the body's use of iron. The essential functions of iron, copper, and cobalt are apparently interrelated, and the prolonged deficiency of one or more of them causes a rather characteristic sickness. A deficiency of cobalt may therefore occur alone or in combination with copper and iron deficiencies.

For some years now, it has been recognized that certain soils in New Zealand, Australia, Scotland, Western Canada, Northern Michigan, Cape Cod, and Florida are deficient in cobalt. In general, the amount of cobalt to be found in the soil is related to the magnesium content of the parent rock. Healthy soils contain as a rule ten or more parts of cobalt per million. In the areas just mentioned, however, there is little or no cobalt in the soil and in the forage which grows thereon. This brings out an important point, namely, that the trace element problem is not limited to the qualitative features of crop production; in animal nutrition it has been found that mineral deficiencies may be present even where the growth of feed is abundant. So supplementary feedings with cobalt in these areas are needed even when the cattle are grazing upon an abundant pasturage.

A certain form of chlorosis in some plants has been recorded as due to a cobalt deficiency, but as indicated above, most of the cobalt deficient forage appears to be healthy. While not much is on record about "hidden hunger" of plants for cobalt, medical men are always interested in a report made about seven years ago that M/15,000 solutions of cobalt nitrate inhibits the formation of tumors in Ricinus plants innoculated with Phytomonas tumefaciens. Plant chemists have long noted that there is considerable variation and differences in the ash of vegetables when they are being burned for lime determinations. Sometimes they are white, sometimes they are brown, and again they are green. The green color is due to the presence of cobalt, although we think of cobalt as the material that is used to make glassware blue. But no relation has been observed between the plant growth and its apparent health and the presence or absence of cobalt in the ash. It is also of interest to us that the Australian studies have shown that the cobalt content of the soils in pastures are distinctly higher in the early spring than later in the season. The use of cobalt chloride in the top dressing, even in amounts as low as two pounds per acre has been followed by an appreciable increase in the cobalt content of the pasturage. Sheep and cattle do well on pastures so treated where before they became ill.

For many years a group of similar diseases in sheep and cattle have been recognized under the names "enzootic marasmus," "coast disease," "bush sickness," "Morton's Main Disease" in New Zealand and Australia, "Nakuritis," in East Africa, "pine or pining disease" in Scotland, "salt-sick or hill-sick" in Florida, and "Grand Traverse" or "lakeshore disease" in Michigan. The animals have a microcytic hypochromatic anemia and progressive emaciation resulting in death for about one third of the animals so afflicted. Shortly after the disease was recognized it was found that moving the anemic animals from the "affected" pastures along the coast to an upland pasture or the feeding of certain crude iron salts resulted in cures. This led to the use of pure iron preparations and disappointment, for it was only when the crude iron salts (Limonite) were used that the results were satisfactory. Post-mortem examinations of these anaemic animals revealed that the livers and spleens were filled with extra stores of iron. The Limonite was then extracted and its iron, copper, zinc and cobalt were used separately. Thus it was found that cobalt was the essential element. This was then fully confirmed when they proved that drenching sheep with as little as 0.1 milligram and cattle with only 0.3 milligram daily was enough to keep them healthy while living on these deficient pastures. In certain coastal areas, the livers of the diseased sheep showed an extra amount of iron stored, but the copper content was decidedly reduced. As would be expected, the supplemental feeding here of both copper and cobalt was much more effective than either of them alone. In Northern Michigan cows with the Grand Traverse Disease do quite as well on cobalt alone.

Whenever salt-sick cattle fail to respond to the usual supplement of copper and iron it is recommended by the Florida Agricultural Experiment Station that cobalt be added. For well established

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This is the third of a series of editorial summaries on the so-called trace mineral elements in Conservation, Nutrition and Health.

cases they "dissolve 10 grams of cobalt chloride or cobalt sulphate in one gallon of water. Give the mature animal six ounces as a drench once weekly for three or four weeks. Calves should be given three ounces and other animals in proportion. For the prevention of this nutritional anemia, they recommend "Add one pound of cobalt chloride or cobalt sulphate to each ton of regular salt-sick mixture (100 pounds of salt, 25 pounds of red oxide of iron, 1 pound of copper sulphate). A recommended manner of making this addition is to dissolve 22 grams of cobalt sulphate in a small amount of water and spray it over 100 pounds of the salt-sick mixture with a fly sprayer or atomizer. It should be mixed thoroughly so that animals taking it will secure a uniform amount. This should be offered in protected mineral boxes at all times."

There is danger in applying to one species information that has been learned about another without regard to quantitative or qualitative differences in the requirements of the respective species for these trace elements. This is illustrated by the fact that horses can remain healthy on cobalt low pastures where sheep and cattle develop a severe anemia. Likewise, no one has ever been able to produce a cobalt deficiency syndrome in rats up to the present time.

As is so often the case in animals, in the absence of these essential trace minerals they become quite ill, but on the other hand, slightly larger doses will also produce disorders. As a rule, the margin is not very wide. For fifteen years now, it has been known that larger doses of cobalt will produce a polycythemia in rats, mice, guinea pigs, rabbits, dogs, pigs, chickens, and frogs. This polycythemia represents a true increase in the number of red blood cells, and apparently comes about through a direct stimulation of the bone marrow. Certain workers have been able to sustain this polycythemia for months in dogs and in rats. Vitamin C is known to prevent this condition or to reduce it once it has been started in the rabbit or in the dog. Feeding of liver to rats only aggravates the condition, but the sulphur containing amino-acids will prevent the development of this polycythemia. There are many more facts known about the toxic effect of cobalt, but there is none of it that will help us here. Suffice it to say that a little is essential, but a very little more is toxic.

When Dr. Ouida Abbott came from Missouri to take charge of Home Economics at the Florida Experiment Station she saw, what were to unaccustomed eyes, too many chalky faced, listless, dull boys and girls. It was hook worm and malaria, everyone said; but she enlisted a physician, Dr. Chester F. Ahmann, and they investigated to see if it was. They found it was not. In one section situated on soils overlying hard rock phosphate subsoils, only 3 percent of the children had anemia, but within a distance of six miles where the soil is for the greater part Leon, located in the flatwoods country, 96 per cent of the children were afflicted. At the same time it was found that the number of children infected with hook worm and malaria was about the same in the two localities. They found out further that the Leon, Portsmouth and Norfolk soils (all low in iron) prevailed in those areas having the highest percentage of anemic children. On the other hand, the sands and sandy loam of Herando and Hoffman soils (all high in iron) predominate in those districts where the percentage of anemia was lowest.

Using the prevalance of salt-sick cattle as a measuring stick for the nutritional wealth of the soil, Dr. Abbott checked over her charts covering more than 4000 children in five Florida counties and found that their anemias were definitely linked to the soil in a most striking manner. For instance, from 52 per cent to 96 per cent of the children were anemic in those counties with a deficient soil, but when the soils were sufficiently rich in minerals to prevent the cattle from being salt-sick, at most only 23 per cent of the children were anemic and in some areas none at all.

Cobalt is found in extremely small amounts in most of the organs of the human body. The requirements for man, however, are unknown. Kato has reported some favorable results in its use in the treatment of anemia in infants. It has the ability to activate *in vitro* several of the enzymes, but it has never been identified as the physiologic ion in any enzyme system.

Thus we see that cobalt is apparently essential to normal red blood cell formation, and has a place in cell metabolism and the enzymatic processes which is badly in need of further investigation.

Within the year its distribution in animal tissues has been reported as determined with the aid of artificial radioactive isotopes. This work confirmed the evidence that cobalt is found in its highest concentrations in the glandular organs. Regardless of whether it is absorbed or injected, cobalt is rapidly excreted in urine, but the greater part of it when ingested is not absorbed. Because the pancreas is relatively high in cobalt it has been suggested that it may have a part in the synthesis of insulin. However, both nickel and zinc areas appear in relatively greater amounts in the pancreas, so that we await with interest further investigation of this problem.

So we have again a trace mineral which bids fair to occupy a place of increasing importance as our investigations of the nutritional role of the trace elements continue to bear fruit.

Chronic Granulomatous Pyogenic Liver Abscess

A Case Record Presenting Clinical Problems

ROBERT M. WOOLFORD, M.D., and PEARL M. ZEEK, M.D.

HISTORY: T. M.—A 59 year old retired policeman entered the hospital on June 17, 1942. One month before he had developed what seemed to him a severe cold, but which his doctor diagnosed as "'double pneumonia", and treated with a sulfonamide. During this episode he complained of pain in the right upper quadrant and was given "liver extract" for it by his physician. He gradually improved but was very weak and spent much of his time in bed. Three days before entry he developed a severe frontal headache and a few hours later noticed pain running down the back of his neck. These symptoms persisted. He vomited once and began to hiccough, shortly before admission. He had noticed some nausea during the month of illness. Constipation and a poor appetite were present for three months before entry—during which period he had lost thirty pounds. His health had been good until two years previously, when he was treated in this hospital for myocardial infarction. He had not worked since this episode.

Physical Examination: Temperature 100.6 (rectal); pulse 92; Respirations 28. The patient was a well developed and nourished middle aged white man who appeared acutely ill and complained of pain and stiffness in his neck. There was no tenderness on pressure over the mastoid prominences or bony sinuses, but pressure over the temporal regions produced pain. In the eyes slight blurring of the nasal margins of both discs were seen. The ear drums could not be visualized owing to the presence of dried cerumen in the canals. The pharyngeal mucosa was moderately injected. There was definite rigidity of the neck on attempted flexion. The cervical lymph glands were enlarged but not tender. There was slight diminution of resonance anteriorly over the upper portion of the right chest and medium sized rales were audible posteriorly over both bases and over the posterior axillary region on the left. No cardiac abnormalities were found. Slight tenderness and rigidity were noted in the right upper quadrant and the liver was palpable two finger-breadths below the right costal margin. Sensation and motor power appeared to be normal. Reflexes were equal and active in the upper extremities, while the knee and ankle jerks were absent. The plantar reflexes were flexor in type. The examiner could make no diagnosis but suspected that meningitis was present.

Date	Init. Press.	Response to Jugular Compression	WBC	% PMN	RBC	Protein mgs. %	Sugar mgs. %	Cl. mgs. %
6-17	190	adequate	2800	98	100	145	44	614
6-18	170		2708	96	40	125	45	596
6-21	120		8000	100	—	—	—	—

Laboratory Data: Blood: (6-17)—Hgb. 12.2; RBC 4.27; WBC 16,000. Diff.: neutrophils 88 per cent, lymphocytes 11 per cent, monocytes 1 per cent. (6-19)—RBC 3.88; WBC 17,400. Kahn—negative. Culture—(6-17) negative; (6-18) negative. Urine: (6-17)—negative except for occasional white blood cells; (6-19)—albumin two plus, occasional white blood cells and red blood cells.

Spinal Fluid:

Spinal fluid smears and cultures were negative. Special preparations revealed no acid-fast organisms or fungi. X-ray: Films of sinuses and mastoids showed no evidence of infection. Flat plate of abdomen presented no definite abnormalities. Chest film disclosed an area of infiltration in the right first interspace, with no distortion of the diaphragm. Laboratory diagnosis: meningitis, cause not determined.

Course in the hospital: Sulfadiazine therapy was instituted on the first day. He was given an initial dose of four grams by mouth, then one gram every four hours. Blood levels of eight to ten milligrams per cent were maintained until death. The patient became increasingly weak and drowsy and complained repeatedly of headache and dizziness. He perspired profusely and suffered paroxysms of hiccoughs. Except for slight dilatation of the right pupil, there was no alteration in the neurological findings. The right sided abdominal tenderness persisted. The admission temperature, pulse and respiration prevailed almost unchanged until the patient died on June 22, his sixth hospital day.

The clinical diagnoses were: Meningitis and brain abscess, probable source of infection being the gall bladder; arteriosclerotic heart disease.

Necropsy report: The necropsy was performed five hours after death by Frank T. Siebert. The important departures from normal were related to three pathological conditions; acute meningitis, chronic liver abscess and coronary arteriosclerotic heart disease.

The brain weighed 1450 gm. The meninges over the brain stem were filled with grayish

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This is the eleventh of a series of "Case Records Presenting Clinical Problems", selected by Dr. R. S. Austin, Professor of Pathology, University of Cincinnati College of Medicine.

*The authors represent respectively the Medical Service and the Pathological Service of the Cincinnati General Hospital.

yellow, tenacious purulent material. No exudate was found over the superior cortical surfaces. The brain tissue was edematous but otherwise not remarkable. The lateral ventricles were moderately dilated and filled with grayish yellow, purulent fluid. Exploration of the frontal and sphenoid sinuses revealed no exudate. Microscopic sections of the brain presented *acute, purulent basal meningitis and lateral ventriculitis.* The reaction consisted of large numbers of polymorphonuclear leukocytes and markedly congested blood vessels. Smears and cultures of the exudate in the meninges and lateral ventricles revealed *beta-hemolytic streptococci.*

The liver weighed 1920 grams, (normal is about 1500) and was adherent to the diaphragm by a few, fibrous adhesions on the anterior surface of the right lobe. Beneath these adhesions there was a slightly elevated, yellow nodular area which, when sectioned, presented a *large multilocular abscess cavity* containing an abundance of greenish yellow pus. The abscessed area measured 25x20x12 centimeters and involved about half of the right lobe of the liver. Although the abscess extended through the lobe of the liver from the inferior to the superior surface, over half of the abscess lay in the inferior half of the right hepatic lobe and surrounded the larger bile ducts and portal veins. A heavy fibrous wall bounded the abscessed area, and the adjacent liver tissue appeared compressed, congested and edematous. No abscessed area was found which did not communicate with this large cavity.

The gall bladder was of average size but contained six small black stones which were pyramid-shaped with multi-faceted surfaces. The extrahepatic bile ducts and blood vessels were not remarkable. The pancreas appeared normal. The stomach was distended with about a liter of fluid containing considerable mucus but no blood. Multiple small diverticuli filled with hard fecal material were found in the cecum and colon. The gastroenteric tract otherwise appeared normal.

Microscopic sections of the liver abscess revealed numerous communicating foci of suppuration in all stages of degeneration and attempted repair. Around the more necrotic areas polymorphonuclear leukocytes were numerous and gram positive cocci were found. In the more chronic areas macrophages were the predominating reacting cells, and there were some even older areas presenting extensive granulation tissue. In most places there seemed to be effective walling off by fibrous tissue although there were a few foci of further extension into the surrounding liver tissue.

An outstanding characteristic of the liver lesion was the condition of the bile ducts and portal veins. Although some ducts contained pus, their walls were essentially normal. The portal veins, however, presented extensive inflammation, in all stages, in their walls; in many places lumina were entirely or partially occluded by organizing, canalizing thrombi. A few medium-sized portal veins were completely plugged by partially hyalinized scar tissue. Smears and cultures of the liver abscess revealed beta-hemolytic streptococci and colon bacilli. Careful search of the microscopic sections revealed no parasites or organisms other than gram positive cocci. Sections of gall bladder and extrahepatic bile ducts presented active chronic inflammation.

The lungs weighed 600 and 520 grams right and left respectively. There was moderate congestion of all lobes but no consolidation except in a triangular subpleural area in the inferior portion of the right upper lobe. This area was firm and very dark red, the base lying along the pleural surface and measuring seven centimeters. Microscopically this lesion was found to be a large *septic infarct* with recent obstruction of a pulmonary artery by an embolus containing thrombotic material and numerous cocci.

The walls of the colonic diverticuli presented active chronic inflammation. There was also a generalized low grade chronic enterocolitis, but no ulceration or acute foci were found.

The heart weighed 380 grams. The valves were not remarkable. The coronary arteries presented numerous atheromatous patches and placques a few of which were calcified. In the main stem of the right coronary artery there was an adherent thrombus which nearly occluded the lumen for a distance of about two centimeters. The myocardium contained numerous gray, scarred areas, but no fresh infarcts were found either grossly or microscopically. Sections through the right coronary artery presented organizing, canalizing thrombosis with incomplete occlusion.

The final diagnoses were as follows: acute purulent beta-hemolytic streptococcus meningitis and ventriculitis; acute septic embolism and infarction in the lung; chronic granulomatous pyogenic liver abscess; chronic intrahepatic pylethrombophlebitis with extensive fibrosis and obstruction; chronic active cholecystitis and cholangitis with cholelithiasis; advanced coronary arteriosclerosis with organizing, canalizing thrombosis; healed myocardial infarction; chronic diverticulitis of the cecum and colon; low grade chronic enterocolitis.

DISCUSSION

In correlating the clinical course with the pathological findings it is possible to postulate a reasonable chain of events. The infection may have begun in a colonic diverticulum or in the gall bladder, with local venous involvement and thrombosis, and subsequent embolism through the portal vein to the liver with resultant pylephlebitis and liver abscess. The type of lesion in the inferior portion of the right lobe of the liver suggests that the suppuration antedated the five-week period of clinical illness.

Involvement of Glisson's capsule on the diaphragmatic surface following extension of the process through the liver may have caused the right upper quadrant pain one month before admission. If there was also pneumonia at that time it had cleared completely by the time of death. The next step was probably an embolus to the lung from the abscessed area in the liver, with resultant septic infarction. The final step was probably a metastasis of the streptococcic from this pulmonary focus to the meninges, either through the left heart, or possibly by way of the vertebral veins. The signs and symptoms during the last week of illness are attributable to the meningitis, for the most part, with singultus probably due to the inflammatory lesion beneath the diaphragm. The colon bacilli which were cultured from the liver abscess were thought to be a contamination or terminal invaders since none was found in the miscroscopic sections. The liver abscess was missed, clinically. The gall bladder was considered as a possible source of infection, but further investigation was not feasible, due to the patient's condition.

The main laboratory difficulty was the failure to find organisms in the spinal fluid. Cultures were made in two of the hospital laboratories, neither of which obtained any growth. It is possible that bacteria were not present in the lumbar spinal fluid at the time of the first puncture although this seems unlikely with 2800 white blood cells present. However, the sugar of 45 mgm. per cent suggests that bacteria were not particularly abundant. Later cultures may have been inhibited by sulfadiazine, although para-amino-benzoic acid was used. Altogether no good explanation is forthcoming.

This case is interesting from a pathological standpoint because of the etiology of the liver abscess. Chronic liver abscesses caused by pyogenic organisms are not common. A few cases have been described or mentioned by Beaver, Eliason and Ochsner. Chronic pyogenic liver abscesses may be either single or multiple. They usually originate along the distribution of the portal circulation in the liver, being caused by septic emboli in the portal circulation or by pylethrombophlebitis. The appendix has been found to be the site of entry of organisms into the portal circulation in some cases. Frequently the primary focus has been cryptogenic. Any of the pyogenic organisms may be the etiologic agent. Such abscesses can be differentiated pathologically from cholangitic abscesses by the more marked and longer standing involvement of the portal veins as compared with the involvement of bile ducts, the absence of bile staining and the fact that cholangitic abscesses are more likely to be small and multiple.

Liver abscess giving rise to an acute meningitis is also an unusual occurrence. Keef.er describes three cases of liver abscess with cerebral complications.

SUMMARY

A case report with autopsy findings, is presented in which a solitary chronic pyogenic liver abscess was complicated by acute septic pulmonary embolism and terminal acute meningitis. The lesions were caused by beta-hemolytic streptococci and were not improved by sulfonamide therapy.

In an address at the 75th annual meeting of the West Virginia State Medical Association, July 13, 1942, at Huntington, W. Va., H. J. Anslinger, U.S. Commissioner of Narcotics, stated that there is about one narcotic addict for every 3000 of the general population in the United States.

Diagnosis and Treatment of Protozoan Infections of The Intestine

The method we find most satisfactory for office use is the Centrifugation Zinc Sulphate Flotation technique worked out by Faust and his associates, but as yet not widely used in our own section. With this method the stools may be allowed to stand if kept cool, and we have even successfully examined stools shipped from states two or three days distance. It likewise is representative of the whole stool. It has the disadvantage of destroying the trophozoites and precytic stages and may even at times break up very young cysts.

The method is as follows: *First* — A direct smear in normal salt for trophozoites, also a direct iodine stained smear for early cysts. *Second*—The entire stool is then mixed with tap water enough to make an emulsion, then centrifuged for 60-70 seconds and the supernatent liquid poured off and water again added, shaken well and again centrifuged, this being repeated several times until the supernatent fluid is reasonably clear. (The sediment containing the cysts if desired can then be stained and examined for cysts, and represents a concentration in number of 4 to 6 times the number present in unconcentrated stool). We then add to the sediment a zinc sulphate solution with a specific gravity of 1.19 (334 grams of Merck's ZnSo4 to a liter of distilled H_2O, shake thoroughly and again centrifuge for 60-70 seconds. The surface film is skimmed off with a wire loop and stained with D'Antoni's iodine stain (15 grams of powdered iodine in a liter of Sat. solution K.I.) and examined for cysts of ameba and other protozoa, and ova of helminths. We sometimes with this method see as many as 30 cysts per high power field. The entire procedure of preparing the specimen for examination requires but a few additional minutes.

The efficiency of this method has been shown to be:

85 per cent in Trichocephalus Trichuris with centrifuge of 90 seconds
82 per cent in Ascaris with centrifuge of 70 seconds
83 per cent in E. Histolytica with centrifuge of 70 seconds
92 per cent in E. Coli with centrifuge of 70 seconds
34 per cent in Endolimax Nana with centrifuge of 80 seconds
20 per cent in Chilomastix with centrifuge of 80 seconds
90 per cent in Giardia Lamblia with centrifuge of 70 seconds
Balantidium Coli and Trichomonae unknown.
Tenia Group unknown.—Alva A. Knight, M.D., Chicago; Ill. M. Jour., Vol. 82, No. 4, October, 1942.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBERCULOSIS IN COLLEGE STUDENTS

The Tuberculosis Committee of the American Student Health Association was formed in 1931 following the First National Conference on College Hygiene at Syracuse University. At that time six institutions of higher education were known to have begun tuberculosis programs—the state universities of Minnesota, Michigan and Pennsylvania and Western Reserve University, Vassar and Yale. At the close of the first five years of the Committee's work, 50 colleges reported programs. Now, at the end of the second five years, 304 institutions so report. This number represents every section of the country, and includes endowed colleges and universities; state colleges, institutes, teachers' colleges and universities; and civic colleges and universities. State universities make the best showing; the small, privately endowed colleges the least satisfactory.

In 1936-37 there were 91 colleges using the tuberculin test on 56,224 students; in 1940-41. 255 colleges were doing so, and the number of students taking the test had increased to 149,744. The percentage of institutions using the Mantoux method has dropped in this period from 88 per cent to 82 per cent. Recent experiments in some localities with Patch testing, along with some schools using the Pirquet method because the state supplies only that type of testing material, account for the drop.

The number of colleges using routine chest films without prior tuberculin testing has increased from 12 per cent in 1936-37 to 16 per cent in 1940-41. A few colleges and universities have adopted miniature film mass surveys.

There has been an encouraging increase in the number of colleges examining non-student personnel. In 1936-37, 30 colleges required the examination of food handlers and 29 the examination of faculty and administrative employees, while in 1940-41 there were 108 colleges reporting the examination of food handlers and 92 the examination of faculty and administrative personnel.

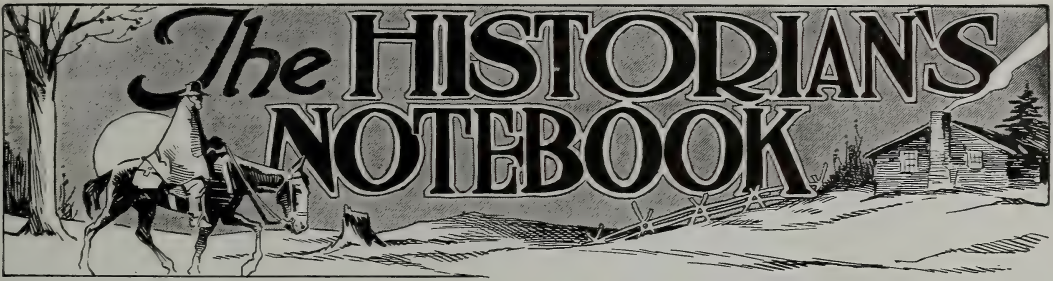
The annual reports of the Tuberculosis Committee have disclosed a startling difference in the amount of tuberculosis in students discovered in colleges with case-finding facilities and in schools with no program of case finding. In this second five-year period, 1936-41, the colleges in the latter category reported the discovery of 184 new cases of tuberculosis among a student enrollment of 668,895, or 27.5 per 100,000. The colleges with case-finding facilities reported the discovery of 3523 new cases in a student enrollment of 1,850,755, or a rate of 190.5 per 100,000, during the same period.

Roughly, this confers a ratio of seven-to-one in favor of the progressive colleges dedicated to the proposition that tuberculosis must be tracked down to its lair, found early, treated promptly, if it is to be defeated ultimately in the individual and in the nation. These figures imply that thousands of cases of tuberculosis, many of them infectious, are being harbored and ignored among American college students through utter failure of most colleges to comprehend that a threat to health truly exists and that a major social and economic problem clamors for action.

Letters from college administrators attempting to justify the non-existence of case-finding programs in their respective institutions indicate the prevalence of such ancient ideas as, that only when "consumption" arrives is tuberculosis present, that early tuberculosis can be ruled out by a doctor's cursory certification, or by stethoscopic search, or by stratified social selection. The survival of these fallacies among educated people represents our failure to carry the truth ceaselessly and convincingly to every person whose information, no matter how complete in most directions, remains barren with respect to tuberculosis.

The war, which brings in its train conditions of overcrowding and overwork, the disruption of public and private medical services, the curtailment of budgets and restriction of personnel, gives opportunity also for the increase of tuberculosis unless special efforts are made to guard against this menace. Army, Navy, industry, public health—all must fight together and against tuberculosis, but it is of the very essence and function of education that colleges and universities lead the battle.

It is suggested that just as counties were once accredited for eliminating tuberculosis from their dairy herds, even as today they are being accredited in Minnesota for driving death rates and infection rates to low levels, colleges and universities might be accredited by the American Student Health and the National Tuberculosis Associations, once they have inaugurated and maintained acceptably a modern program against student tuberculosis. Laggard colleges might thus be tempted to make the necessary adjustments so that they could be listed on the Roll of Honor of progressive, public-spirited institutions.—Charles E. Lyght, Amer. Rev. of Tuber., Sept., 1942.



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Jacques Cartier--First Pathologist of New France and of Ohio

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JACQUES CARTIER, known as the Mariner of St. Malo and as an intrepid adventurer who extended the realm of the fleur-de-lis and of the Catholic faith from the Old World to the Bay of Chaleur and the St. Lawrence region in the New World, also pioneered as a pathologist. In all probability Cartier performed the first postmortem examination in New France. And New France came to include the vast expanse of the Ohio country, for not until the Treaty of Paris in 1763 did the French relinquish their claims in the Ohio region to the English. The history of the autopsy in Ohio, therefore, may be said to have begun with Cartier.

The Author

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Cartier must have been imbued with the development of French scientific thought developing in the sixteenth century. His journals show the discriminating mind of the scientist and geographer as well as the man of medicine. The leader of an expedition to the New World in 1534 had to be many things to many persons. His sailors depended upon him not only to protect them from Indians and disease in New France, but also to bring them safely home to the shores of Brittany. Among the plagues which drained the strength of Cartier's men during their second voyage in 1535-1536 was the scurvy which the Jesuits later were to call *mal de terre*. The disease's symptoms are recognizable enough to any modern physician: spongy gums, extravasations of blood, livid, indurated patches of skin, hemorrhages from the mucosa, fetor of the breath, and painful contractions of the muscles. Cartier wrote that "the sickness broke out among us accompanied by most marvellous and extraordinary symptoms; for some lost all of their strength, their legs became swollen and inflamed, while the sinews contracted and turned as black as coal [aux brazi et au col]. In other cases the legs were found blotched with purple-colored blood. Then the disease would mount to the hips, thighs, shoulders, arms and neck. And all had their mouths so tainted that the gums rotted away down to the roots of the teeth which nearly all fell out." Father Pierre Biard, of Grenoble, later described the disease in almost identical terms and Father Paul le Jeune, another Jesuit who in 1637 was Superior of the Residence of Kebec, also testified to the frightfulness of the scurvy. The disease also struck at settlers in the region of the Ohio.

By the middle of February, 1536, there were only about 10 well men in Cartier's entire company of 110. After offering up a special mass to the Virgin and after making a vow to go on a pilgrimage to Our Lady of Rocamadour if the disease diminished, Cartier showed himself the experimental pathologist. Phillip Rougemont, twenty-two-year-old native of Amboise, had died and Cartier, after sober reflection, determined upon an autopsy. His instruments were few and crude, yet with them he did the first postmortem in New France. Cartier, writing in the third person, described his procedure with clinical exactness in his journal:

> "And because the disease was a strange one, the Captain had the body opened to see if anything could be found out about it, and the rest, if possible, cured. And it was discovered that his heart was completely white and shrivelled up [le cueur tout blanc et fletry] with no more than a jugfull of red date-coloured water about it. His liver was in good condition but his lungs were very black and gangrened; and all his blood had collected over his heart; for when the body was opened, a large quantity of dark, tainted blood issued from above the heart [car, quant il fut, ouvert, sortit au dessus du cueur vne grand habundance de sang, noyr et inffect]. His spleen for some two finger breadths near the backbone was also slightly affected, as if it had been rubbed on a rough stone. [Pareillement avoyt la ratte, par devers l'eschine, vny peu entamée envyron deulx doidz, comme si elle eust esté frottée sus vne pierre ruddle.] After seeing this much we made an incision and cut open one of his thighs, which on the outside was very black, but within the flesh was found fairly healthy. Thereupon we buried him as well as we could."

The precise place at which this first postmortem in New France took place is somewhat difficult to determine. It was probably in the vicinity of the St. Charles River, as Cartier and his men had remained at the little village of Stadacona, to the north of which lay the river and harbor of St. Charles, from September 15, 1535, until May 6, 1536. The autopsy took place in December of the former year. Unfortunately, Cartier could make little of his pathological findings. There was no clue in tissue or organs which led him to suspect that scurvy was a dietary affair, that if he could have kept his men clean and furnished them with a diet of vegetables and vegetable acids he would have cut his mortality rate. But his Frenchmen subsisting upon a diet of fats, salt meats, and wormy ship's stores were courting the disease. Fate, however, favored them. Dom Agaya, a sailor with all the typical symptoms of scurvy, returned after having spent ten days with the Indians. When he left Cartier his knee was swollen, his teeth had become decayed, and his gums tainted. When he marched into camp surrounded by Indians he was in good health. The savages had introduced him to either an infusion or decoction compounded from the leaves of a tree called *Annedda*. In all probability the tree in question was the hemlock which was used by both the Senacas and Wyandots.

Cartier was so impressed by Dom Agaya's improvement that he and Agaya together with two squaws went in search of the tree and returned with nine or ten branches. The squaws then ground the bark and the leaves and boiled the whole in water. Then Cartier urged it upon the sick who at first refused to try the remedy. A few took it, however, and within a few days recovered health and strength. "And some of the sailors who had been suffering from the French pox were by this medicine cured completely [des compaignons, qui avoyti la verolle puis cinq ou six ans auparavant la maladie, a esté, par icelle medécine, curé nectement.]" Cartier then continued in his journal: "When this became known, there was such a press for the medicine [y a eu presse] that they almost killed each other to have it first; so that in less than eight days a whole tree as large and as tall as any I ever saw was used up and produced such a result that had all the doctors of Louvain and Montpellier been there, with all the drugs of Alexandria, they could not have done so much in a year as did this tree in eight days; for it benefited us so much that all who were willing to use it, recovered health and strength, thanks be to God."

Although Cartier had paved the way for protection from scurvy by the use of the hemlock, the lesson soon was forgotten. In April, 1542, John Francis de la Roche, knight, lord of Roberval was appointed to lead an expedition into New France. Roberval's party moved up the broad expanse of the St. Lawrence, past the strait of Belle Isle, and the Isle of the Ascension and finally arrived four leagues westward of the Isle of Orleans where Roberval probably took possession of the cabins left by Cartier at Cape Rouge. By September supplies were running low and the men were living on a diet of bread, beef, butter, and beans. Roberval recorded that "They [his sailors and soldiers] ate Bacon at dinner with halfe a pound of butter; and Biefe at supper, and about two handfuls of Beanes without butter." Even though this menu was infrequently supplemented by codfish, porpoises, and the common shad, it was almost sure to result in the dreaded scurvy. It was not long before "many of our people fell sicke of a certain disease in their legges, reyes [loins], and stomacke, so that they seemed to bee deprived of all their lymmes, and there dyes thereof about fiftie," Although on first glance it appears strange that Cartier who had met Roberval before the latter set out for New France did not warn his lordship of the perils of the scurvy and suggest the hemlock, the situation is understandable. There was unfriendly feeling between the two men. Roberval charged Cartier with "ambition" and said that he left secretly for Brittany before Roberval could talk with him.

Despite the bitterness or even the friendship which existed between the two explorers, Cartier was by far the more significant not only to the student of colonial history, but also to the medical historian; for it was the Mariner of St. Malo who was imbued with the scientific spirit of his century and who, although a devout Catholic, was willing to perform the first autopsy in New France in order that medical progress should advance still further.

Physicians Eligible for Extra Gasoline If Needed For Professional Calls; Rules and Procedures Analyzed; Suggestions as To How Doctors Can Cooperate

As GASOLINE rationing went into effect in Ohio on December 1, physicians had been assured by officials of the Office of Price Administration following conferences with representatives of the Ohio State Medical Association, that every possible effort would be made to see that physicians receive sufficient gasoline for professional travel as defined in the regulation.

Physicians are included among the 20 special categories of persons who, because of their occupations, can establish eligibility for supplemental mileage or more than the basic allowance of approximately 16 gallons per month.

In order to apply for supplemental mileage, a physician must first apply for a basic, or "A" ration book which theoretically allows him enough gasoline for 90 miles of driving on personal matters and 150 miles of occupational driving each month. At the time this book is granted by his local rationing board, the physician may then make application to the board for a "B" or a "C" book, according to the amount of driving he does each month for professional purposes. Theoretically, a "B" book is intended for those who must do more than 150 miles of occupational driving each month and a "C" book for those who need more than 470 miles a month to take care of occupational requirements.

Officials of the OPA in all discussions of the eligibility of physicians for supplemental mileage emphasize the fact that the authority to grant it rests solely with local rationing boards and that each case will be considered individually by the local boards. No general interpretation of the regulations, they said, could be made at a state level.

In a "guide" or manual of guiding principles sent to all local boards the following points were made:

1. To qualify as a physician or surgeon under the terms of the regulations, the applicant must be licensed by the proper agency of government (the Ohio State Medical Board).

2. A physician is not entitled to preferred mileage for travel between home and office merely to keep office hours and to receive patients. He may be granted preferred mileage for professional calls which include occasional visits to his office to pick up equipment or obtain directions and information necessary to make such calls.

3. Travel to and from medical meetings and conferences or for attending courses of study may not be included in preferred mileage.

4. Travel by supervisors and agency heads who direct the work of physicians and surgeons is not considered grounds for preferred mileage.

5. Internes and medical students may qualify for preferred mileage if making professional calls under the direction of a hospital or medical school outside such institutions.

6. Not included in these categories are hospital technicians, X-ray technicians, and private-duty nurses. Public heath nurses are eligible for preferred mileage.

For special circumstances, supplemental or special rations of gasoline may be obtained by the general public, and in general these will be available to persons needing to travel to obtain medical care or special therapy. OPA officials state. However, here again the case will have to be presented to the satisfaction of the local board. It has been suggested that in instances of this sort a clear statement from the person's physician explaining why such travel is necessary will facilitate handling of the application by the local board.

It is recommended that physicians begin keeping an accurate record of the amount of driving done for professional purposes. When the present ration books expire on March 1, 1943, eligibility for continued supplemental mileage will be determined on the amount of driving done by the physician on professional calls for the first three months of the rationing program.

As a convenience to physicians, The Journal has prepared a form, appearing on page 1140, on which this record may be kept. Clip it out or have a copy made.

As in the programs pertaining to the rationing of automobiles and tires, the medical profession because of the importance of its activities has been given a preferred status. It is the obligation of all physicians to abide by the regulations and not to abuse the special privileges which have been given them.

A letter addressed to the medical profession generally from John R. Richards, chief of the gasoline branch in the national OPA offices and published in the October 31 issue of *The Journal of the A.M.A.* set forth the official attitude toward the claims of physicians for supplemental mileage. This letter was included in a special War Bulletin on gasoline rationing sent to all county medical society preparedness chairmen by the Ohio State Medical Association on October

30. It warrants study by every physician in the state. The text of Mr. Richards' letter follows:

"In the East Coast Gasoline Rationing program, made necessary by the shortage of transportation facilities for petroleum products, the indispensability of your profession was recognized by its inclusion in the categories of persons eligible for preferred mileage, that is, necessary occupational mileage in excess of 470 miles a month. Now the Office of Price Administration has been ordered by Mr. William Jeffers to institute and administer a nationwide mileage rationing program for the express purpose of conserving our rubber-borne transportation. In framing the regulations for the new program, your profession was one of the first to be provided for.

Professional Mileage Record

Name ______________________________, M.D.

Home Address ______________________________

Gasoline Ration Book Number______________________________

December Week of	Miles Traveled on Professional Calls	Gasoline Used
1-6		
7-13		
14-20		
21-27		
28-31		
Totals		
January Week of		
1-3		
4-10		
11-17		
18-24		
25-31		
January Totals		
February Week of		
1-7		
8-14		
15-21		
22-28		
February Totals		

"If we are to carry out our double task of preventing a collapse of our military and civilian transportation, we must have the complete cooperation of those groups of persons whose driving is deemed essential to the war effort. Our immediate aim is to attain the 5,000 mile national mileage average set by the Baruch Report as the maximum possible in light of the dire rubber shortage. Our experience with the East Coast program tells us that the preferred categories use one half of the gasoline consumed, though they constitute less than one fourth of the total number of automobile operaters. Clearly, then, the great savings of rubber on a nationwide scale must be made in the preferred categories.

"Under the Regulations, governing the mileage rationing program, physicians are eligible for preferred mileage if their essential occupational needs exceed 470 miles a month and if the mileage is needed for regularly rendering necessary professional services. Mileage traveled daily or periodicaly between home or lodging and a fixed place of work is not considered preferred. Physicians who conduct their practices in offices, as many specialists do, are not eligible for preferred mileage.

"Without question or hesitation, doctors have been and will be granted all the gasoline needed to carry out their professional work. We hope that they will regard their concrete symbol of their indispensability, the C book, as a moral obligation and not as a personal privilege. From another point of view, the C book is part of a doctor's equipment; it should not be used for anything but the work of humanity.

"When nationwide gasoline rationing begins, there are certain concrete things a doctor can do to live up to the high ethical standards set for him by his own profession:

"1. At the time of first issuance of rations, he can so carefully compute his necessary mileage as to make a B book adequate for his purposes though he might easily make out a case for a C book, which might be granted to him without question by his local War Price and Rationing Board eager to provide for physicians.

"2. In the computation of his mileage, he can religiously adhere to the provision of the Regulations, which makes 150 miles of his basic ration available for occupational purposes. Moreover, he can help mightily in establishing the principles that only 90 miles of the basic ration are to be used for home necessary use and that there is no provision whatever in any ration for 'pleasure driving.'

"3. Conversely, if he should be granted a C book, he can return to the local board, at the end of the three months period, all unused coupons accruing to him as a result of a quite natural overestimation of needs or of overgenerous 'tailoring' by his board, instead of using such coupons for nonessential purposes. The moral effect of such an act on his fellow citizens will be incalculable.

"4. He can set an example by scrupulously observing the 35 mile speed limit, except in cases of emergency, in spite of the fact that doctors could easily 'get away with it.'

"5. Should he be assigned to a hospital, clinic or institution after a ration card for calling on his private practice has been issued, he can use public means of transportation at the price of personal inconvenience.

"6. He can refrain from any kind of driving whatever which might appear to be nonessential in the eyes of the public.

"Doctors are the leaders and molders of public opinion in their communities. If the average man has any reason to believe that the professional men whom he regards with great respect are indifferent or hostile to the mileage rationing program, it will be difficult, if not impossible, to make it effective. Conversely, if doctors as a group observe the letter and spirit of the regulations, they will be a powerful force in making this absolutely mandatory war measure serve its purpose. We know that we can rely on the support of your profession, which has demonstrated its patriotism, ability and unselfishness at every opportunity.

"John R. Richards,
Chief Gasoline Rationing Branch,
Office of Price Administration.."

Commenting on Mr. Richards' letter, *The Journal of the A.M.A.* said that "It calls on the medical profession not only to comply fully with the actual stipulations relative to the rationing of gasoline and tires but also to go beyond such limitations into the spirit of the effort which is so intimately concerned with the winning of the war. Doctors should adhere religiously to the provisions of the regulations and should set an example to all other persons in the community by the economy with which they use these materials."

Army Medical Corps Is Praised by Well-Known Columnist

A well deserved pat on the back was given the Army Medical Corps recently by Raymond Clapper, a widely read Washington newspaper columnist, in an article he wrote especially for "The Medical Soldier," a Medical Corps journal published at Carlisle Barracks, Pa. Mr. Clapper's commendatory article is reprinted below:

"As this war goes along I hope some way will be found to give due credit before the American people to the medical soldier and the work of the Medical Corps.

"For centuries the medical man has shunned the public eye. He is content to do his noble work. He cares only to do his best and to retain the respect of his colleagues. For that reason, I suppose, the medical officer and the medical soldier do not receive in war time the recognition and appreciation which is due them. The work of the medical men is overlooked in the official communiques and in the news reports which the war correspondents send back. Yet the medical units are on the front line, functioning with every combat arm. In the last war per capita casualties were larger in the Medical Department than in the Infantry. The medical soldier and officer, armed only with his litter and first aid pouches, must work under fire, evacuating casualties and conserving fighting strength. He fights not with guns, grenades and bayonets, but with sulfanilamide, sterile dressings, leg splints, and a strong back to carry a litter.

"True, the medical soldier has assailed no stronghold, he has planted no flag in enemy territory, he has not killed one of the enemy. But, he has been aiding our own wounded, keeping up their morale, saving their lives, thereby doing his heroic part in strengthening our own side.

"Not only at the front and in the shell-torn aid stations and back at the base hospitals is the Medical Corps doing its work, but in laboratories the Medical Corps is pioneering in finding new ways to save lives. It is a shining historical circumstance that out of the death and destruction of war the Medical Corps has salvaged countless human lives and found ways which save civilian human life, and thus put all humanity in its debt. Yellow fever was conquered by Army medicine. Typhoid fever was conquered by Army medicine. Hookworm, one of peacetime's deadliest enemies, was conquered by Army medicine. Malaria, cholera, plague fevers of many kinds have been defeated by the valiant scientific work of the Medical Corps.

"These are victories which in the long life of civilization must count along with the decisive military battles of the world. Yet, for lack of imagination, and because of the self-effacing character of all medical men, this story of the Medical Corps has been lightly passed over by war historians. It is being passed over now by those whose job it is to paint a portrait of the United States Army in action in this war. I know this is not intentional but I hope, as I know anyone would who stops to think about it, that some way will be found whereby the public is constantly told about the great work which medical men in the Army are doing to help with this war for freedom and humanity."

WAAC Leader To Speak

Mrs. Oveta Culp Hobby, commander of the Women's Army Auxiliary Corps, will be principal speaker at the Mid-Year Board meeting of the American Medical Women's Association which will be held at the Netherland Plaza Hotel, Cincinnati, December 5 and 6. Mrs. Hobby will speak at the banquet Saturday evening, December 5.

Columbus—Dr. Edw. Harlan Wilson discussed first-hand impressions of England in wartime at a joint meeting of the Washington C. H. Rotary and Lions Clubs.

Plans for Gas Warfare Courses in "Target Areas" Are Progressing; Schedule for Cleveland Area Drafted

PLANS are now being completed to offer, within the next few months, short, intensive courses on the medical aspects of chemical warfare to Ohio physicians residing in the so-called "target areas" of the state. Cooperating agencies on this war project are the Ohio Council of Defense, the state's three medical colleges, the Office of Civilian Defense, and the Ohio State Medical Association.

For the purpose of bringing this important instruction as near the physician's home as possible, the state has been divided into three regions, and traveling faculties from the University of Cincinnati College of Medicine, the Ohio State University College of Medicine, and the Western Reserve University School of Medicine will hold meetings in outlying cities in their respective regions as well as in Cincinnati, Columbus, and Cleveland.

SIX HOURS OF INSTRUCTION

The course as planned requires six hours of instruction—three sessions of two hours each. Topics to be covered include types of gases, their chemical properties, physiology of individual protection, prescribed therapy, eye injuries, treatment of burns, and systemic poisons. All physicians will be welcome at the meetings.

With the exception of the meetings in Columbus for the physicians of Columbus and Franklin County, which have already been held, all meetings will be held after Jan. 1. Dates for the meetings in the Cleveland area have been set, and dates of the meetings in Central Ohio and the Cincinnati area are to be announced later.

CLEVELAND AREA SCHEDULE

Following is the schedule of meetings at which Western Reserve faculty members will give the instruction:

Cleveland, Jan. 8, 12, and 15—includes Cuyahoga, Lake, Ashtabula, and Geauga Counties.

Lakewood, Jan. 19, 22, and 26—includes Lorain and Erie Counties and the western portion of Cuyahoga County.

Akron, Feb. 2, 5, and 9—includes Summit, Portage and Medina Counties.

Canton, Feb. 11, 16, and 19—includes Stark and Tuscarawas Counties.

Cleveland, Feb. 23 and 26 and Mar. 2—Cuyahoga County.

Youngstown, Mar. 16, 19, and 23—includes Mahoning, Trumbull and Columbiana Counties.

In each of the courses under the group from Western Reserve, the first session in each city will be under the direction of Dr. Joseph Seifter, assistant professor of pharmacology. The second session will be in charge of Dr. Harold D. Green, associate professor of physiology; Dr. W. H. Pritchard, instructor in medicine; and Dr. John A. Gammell, assistant clinical professor of dermatology and syphilology. The third session will be sponsered by Dr. J. H. Holloway, assistant clinical professor of surgery, and Dr. R. M. Stecher, assistant clinical professor of medicine.

COLUMBUS MEETINGS HELD

First of the three sessions already held in Coumbus was scheduled as a regular meeting of the Academy of Medicine on Nov. 16, and the other two were held at the University Hospital the following week, Nov. 23 and 27. Lectures for these three sessions included: Dr. Charles A. Doan, professor of medicine; Dr. E. H. Wilson, associate professor of orthopedic surgery; Dr. Clayton S. Smith, professor of pharmacology; Dr. Paul Charlton, assistant professor of clinicial surgery; Dr. A. D. Frost, professor of ophthalmology; Dr. Harry Reinhart, professor of clinical pathology; Dr. Herman Hoster, instructor in medical research; and Dr. George T. Harding, III, clinical professor of psychiatry.

Other cities in which courses will be offered by the faculty members from Ohio State University are Marion and Newark. The Marion meeting will be for physicians in Marion, Delaware, Morrow, Richland, and Crawford Counties. The Newark sessions will be for Licking, Knox, Muskingum, and Fairfield Counties. Dates for these classes have not been set.

OTHER AREAS FORMULATED

Negotiations are under way to have classes offered in Toledo by a similar group from Detroit, but if this cannot be arranged, the group from Columbus will also hold a course there.

Classes will be held by the faculty group from the University of Cincinnati College of Medicine in Cincinnati, Dayton, and Springfield. These will be under the direction of Dr. Robert A. Kehoe, professor of physiology. Counties included in those to be covered by the Cincinnati meetings are Hamilton, Butler, and Clermont, as well as several counties in northern Kentucky. Physicians from Montgomery, Preble, Miami, and Darke Counties will attend the meetings in Dayton. The classes in Springfield will be for physicians from Clarke, Greene, Champaign, and Shelby Counties. Dates for these meetings will be announced later.

Ohio Physicians Made Splendid Record During First Year of War; More Medical Officers Will Be Needed During 1943; Civilian Needs To Be Given Special Attention

AS THE END of the first year of America's participation in the war approaches, it would seem appropriate to summarize some of the important contributions which have been made by the medical profession of Ohio and to consider some of the problems which will confront the profession during 1943.

As of November 23, Ohio physicians totalling 2297 had been commissioned in the Army or Navy and were on active duty or awaiting immediate assignment. This total does not incude those appointed to the public health service and civil service positions of the Federal government and it does not include those who hold commissions in special hospital or specialty units which have not been activated.

Approximately 1,600 of Ohio's medical officers have been commissioned since May 1 when the organized recruiting program under the direction of the Procurement and Assignment Committee and the Medical Officer Recruiting Board was started. This recruiting program was ended in Ohio early in October when the number of medical officers which the government expected Ohio to furnish during 1942 was reached — in fact exceeded.

NEED FOR 1943?

How many additional medical officers will Ohio be expected to supply during 1943?

A definite answer to this question cannot be made at this time. It has been estimated unofficially that there are approximately 42,000 physicians in the armed forces at this time. It is anticipated that between 10,000 and 15,000 additional medical officers will be needed by the end of 1943. Therefore, it may be assumed that Ohio will be called upon to supply a minimum of 400 to 500 additional medical officers during 1943.

The 1943 needs will have to be met primarily by the larger states and the source of supply in such states will have to be the metropolitan areas. One source of supply during 1943 will be students completing their internships but it will be necessary to call upon additional physicians now engaged in civilian practice, especially those of the younger age group, to enter military service during the coming year.

NEW SURVEYS NECESSARY

In order to be in a position to properly advise the Army, Navy, Selective Service and other official agencies as to the availability of physicians so far as civilian needs are concerned, the Ohio Procurement and Assignment Committee will find it necessary to make another study of all communities. Preliminary work has been started by the committee. It will solicit the cooperation and advice of the preparedness committeemen and officers of the various county medical societies. Careful analysis will have to be made of critical target areas and war industry communities. Rural areas especially will have to be surveyed carefully as every effort will be made to see that adequate medical services for the civilian population and industrial workers are maintained.

Although Ohio has supplied approximately 2,300 medical officers to date, there are no places in the state at present where the need for medical personnel is acute. This is proof that during 1942 the Procurement and Assignment Committee exercised good judgment, generally, in classifying physicians as available for military service or in refusing to do so. There are a number of communities in Ohio which will need one or several physicians eventually but where the need is not acute now because services are being rendered by physicians in adjacent areas. There are other communities where the services of an additional general practitioner or specialist could be used to good advantage but where the need is not urgent. But, the over-all situation in Ohio is not serious and the committee anticipates that it will be able to meet all bona fide needs and requests for additional physicians.

INVESTIGATIONS MADE

To find out what the real conditions were throughout the state, the Procurement and Assignment Committee and The Council of the Ohio State Medical Association jointly started an investigation which has just been completed. Data were obtained from the Preparedness Committee of each county medical society and first-hand investigations were made by representatives of the committee and the State Association. This information is being assembled and evaluated. It will be used as a basis for the re-allocation program which will be carried on by the committee in an effort to meet all needs for medical personnel through a voluntary re-distribution of physicians.

Physicians who have been physically disqualified for military service and those above military age who have indicated a willingness to engage in civilian or industrial practice in places other than their home community have been requested by the committee to cooperate. Information about places and industries in need of physicians will be transmitted to such physicians. During the past few weeks, the committee has been successful in supplying physicians for six or seven areas.

MUST AVOID NEW PROBLEMS

When Ohio is called upon to furnish additional medical officers, the work of the Procurement and Assignment Committee will become more difficult as it will become necessary for the committee to clear enough physicians as available to meet the new demands of the Army and Navy but at the same time try not to create additional problems with respect to civilian and industrial medical services. During the coming months, the committee will have to exercise careful judgment and will need the wholehearted cooperation of local committeemen. As pointed out, communities (mostly cities) which can spare physicians will have to provide the 1943 supply of Ohio medical officers.

ATTACKS NOT MERITED

Because of a few unfortunate situations which have arisen in some parts of the country, other than Ohio, certain editors, columnists, writers and politicians have made general charges which would lead the public to believe that the Procurement and Assignment Service has been a failure and that the medical and health situation throughout the country is critical. Obviously, neither conclusion is true. Some of those who have made such charges would like to have the public believe that voluntary methods have broken down and that now is the time to have some government agency step into the picture to run the civilian practice of medicine.

Those who are interested in the facts behind the matter referred to in the preceding paragraph should read the articles published in the November 14 and November 21 issues of *The Journal of the American Medical Association* about the United States Senate Subcommittee on Education and Labor, headed by Senator Pepper, Florida, and the hearings held by that committee.

Obviously, with efforts being made to make medical services under wartime conditions a political football and a wedge for government control of medicine, the selection of physicians for the list of those available for military service during 1943 will have to be done with much discretion.

Moreover, physicians remaining at home will have to work even harder to meet civilian medical needs and medical societies will have to use ingenuity in organizing programs to conserve the doctor's time and to bring about a wider distribution of the services of the physicians left at home. These will have to be done to insure the maintenance of adequate medical service in many areas and they can be done without a great deal of difficulty. Now is the time for the medical profession to again show its critics that medical emergencies can be met by voluntary methods.

SOME PLANS BEING TRIED

Voluntary plans worked out by groups of physicians as a means of insuring constantly available medical service have been established or are being established in several Ohio cities.

In each instance the fundamental principle of the plan is a voluntary effort by the participating physicians to stagger hours away from their offices and to rotate responsibility for accepting emergency and night calls from persons whose family physicians cannot be contacted or who have no family physicians.

Purpose of each of these plans is to cope systematically with the situation arising out of increased demands for medical service and reduced numbers of physicians in the community. After the plans are established, the public is informed through the local press that the service is available and instructed in the way it should be utilized.

In Middletown one physician is on duty at the Middletown Hospital each night from 10 p.m. to 7 a.m. to answer emergency calls. Responsibility for this service is rotated among the physicians who are voluntarily participating.

In Akron and Dayton the local medical societies are considering similar plans by which those cities would be divided into zones and certain physicians would be responsible for night calls on certain days in their respective zones. Under the proposed plan in Dayton, the city's hospitals would serve as zone centers from which the participating physicians would work, and all emergency calls would be handled through the city health department.

In the western section of Columbus, the area known as "Hilltop," the physicians of the community have worked out a plan for rotating responsibility for night calls and staggering their hours away from their offices, thus assuring residents of the neighborhood that medical care will be constantly available. This plan is attracting attention of other neighborhood physicians' groups and may be duplicated in other areas soon.

TO PROTECT PRE-MEDICAL STUDENTS

To further cooperate in the effort to increase the supply of physicians needed to meet the nation's war needs and to provide protection to pre-medical students subject to induction under the revision of the Selective Service Act to include 18 and 19 year olds, recommendations of far-reaching importance have been adopted by the Council on Medical Education and Hospitals of the American Medical Association.

They involve a program for the completion of a student's medical education and the granting of the M.D. degree within a period of five years after graduation from high school as contrasted with seven to eight years before the war. The announcement of the Council's action is reported in the November 14 issue of *The Journal of the A.M.A.* as follows:

> For the duration of the war the Council on Medical Education and Hospitals of the American Medical Association recommends that:
>
> 1. The required premedical education, including satisfactory courses in physics, biology and chemistry, including organic chemistry, shall be included within two calendar years of instruction.
>
> 2. The first year of premedical education shall be considered as a qualifying year for a medical course. At the termination of this first year the student, if acceptable, should be matriculated in a medical school.
>
> 3. Such a matriculated student shall be recommended for enlistment or commission in the Army or Navy to remain in an active status during the second year of his premedical course and until the completion of his medical training, subject to the maintenance of adequate grades.
>
> 4. The medical schools accepting students under these conditions will in no way jeopardize their status with any accrediting agency.
>
> The Council and the Association of American Medical Colleges in February 1942 recommended the adoption of an accelerated program involving the completion of the medical course in three calendar years. Such a program is already in effect in practically all the medical colleges of the country.
>
> These further recommendations adopted by the Council at its Nov. 8, 1942 meeting involve a program providing for the completion of a student's medical education and the granting of the M.D. degree within a period of five years after graduation from high school as contrasted with seven to eight years before the war. Thus medical education has cooperated in the war effort to increase the supply of physicians by speeding up its program so as to shorten the period required for the M.D. degree by from two to three years.
>
> The Association of American Medical Colleges adopted similar recommendations at its annual meeting held in Louisville on Oct. 27, 1942.
>
> Such a program as has been recommended would involve the protection of between 9,000 and 10,000 students during the first year of their premedical college training in order to provide approximately 6,500 satisfactory matriculants for the medical schools of the country on the completion of this first year of college.

In addition to the contribution which it has made to the armed forces, the medical profession of Ohio has continued to play an important part in civilian defense programs and in providing medical examiners for the Selective Service System. During the coming year, the profession will be asked, and expected, to make additional sacrifices. Younger members of the profession will be expected to enter the armed forces if they can be spared from civilian practice and older physicians will be expected to shoulder greater responsibilities back home.

OHIO PHYSICIANS COMMISSIONED DURING PAST MONTH

Following is a list of Ohio physicians commissioned in the Medical Corps of the Army or Navy since the November issue of The Journal went to press on October 16, and up to November 23. Most of them are on active duty; others are awaiting orders and assignment. Readers are urged to inform the Journal as to errors, if any, in this list and to send in the names of commissioned medical officers not included.

Name	City	Rank
Allard, L. D.	Portsmouth	Capt., U.S.A.
Alley, John R.	Greenville	Capt., U.S.A.
Ames, Azel	Hamilton	Lt. Comdr., U.S.N.
Arons, Abraham	Cleveland	1st Lt., U.S.A.
Arnold, Jack W.	Bucyrus	1st Lt., U.S.A.
Astler, DeWitt G.	Cincinnati	Capt., U.S.A.
Barber, Charles R.	Columbus	1st Lt., U.S.A.
Baird, Warren A.	Toledo	Capt., U.S.A.
Barker, Taylor W.	Cincinnati	Lt., U.S.N.
Barr, Edward	Dayton	1st Lt., U.S.A.
Baumes, Ogden H.	Cincinnati	Lt. Comdr., U.SN.
Bayha, Carl H.	Toledo	Lt. Comdr., U.S.N
Besserglick, Irving	Cleveland	1st Lt., U.S.A.
Biles, Robert A.	Norwood	1st Lt., U.S.A.
Birnbaum, Richard I.	Akron	Major, U.S.A.
Bockoven, H. D.	Verona	Capt., U.S.A.
Bolin, Joseph	Norwood	Lt. Comdr., U.S.N.
Boyle, Peter L.	Youngstown	Capt., U.S.A.
Bonnot, Bernard R.	Canton	Lt. (j.g.) U.S.N.
Botsch, Bernard	Toledo	Lt., U.S.N.
Brett, John D.	Cleveland Heights	1st Lt., U.S.A.
Broglio, A. S.	Cleveland	Capt., U.S.A.
Brosseau, Albert A.	Lima	1st Lt., U.S.A.
Browne, E. W.	Dayton	1st Lt., U.S.A.
Bunner, Daniel S.	Columbus	Lt., U.S.N.
Champion, Phillips K.	Dayton	Capt., U.S.A.
Comarr, Avron E.	Cleveland	1st Lt., U.S.A.
Corpe, Kenneth F.	Toledo	1st Lt., U.S.A.
Corso, Paul	Salem	Capt., U.S.A.
Corwin, Robert F.	Dayton	Major, U.S.A.
Corwin, Wm. W.	Galion	Capt., U.S.A.
Davis, Mel A.	Painesville	Lt., U.S.N.
De Maine, P. B.	Akron	1st Lt., U.S.A.
Diggs, Arthur O.	Mansfield	1st Lt., U.S.A.
Domall, E. E.	Toledo	Lt., U.S.N.
Dornheggen, John H.	Cincinnati	1st Lt., U.S.A.
Errington, Allison F.	Akron	Lt. Comdr., U.S.N.
Fabing, Howard	Cincinnati	Major, U.S.A.
Ferguson, E. V.	Cincinnati	Lt. Comdr., U.S.N.
Fetterman, Jos. L.	Cleveland	Major, U.S.A.
Flook, S. E.	Dayton	Lt., U.S.N.
Foley, Wm. T.	Cincinnati	Capt., U.S.A.
Foor, Clifford G.	Hillsboro	Major, U.S.A.
Frankel, David E.	Cincinnati	Capt., U.S.A.
Forsythe, Wm. E.	East Cleveland	1st Lt., U.S.A.
Gaspari, Emidio L.	Toledo	Lt. Comdr. U.S.N.
Geohegan, Thos. W.	Fostoria	Lt. Commdr. U.S.N.
Geroch, Stephen V.	Akron	1st Lt., U.S.A.
Glorioso, John A.	Lima	1st Lt., U.S.A.
Greene, N. S.	Cleveland	Capt., U.S.A.
Gross, Alex	Cleveland Heights	1st Lt., U.S.A.
Hann, W. L.	West Unity	Lt., U.S.N.
Harris, Chas. P.	Cleves	1st Lt., U.S.A.
Harris, Samuel	Cincinnati	1st Lt., U.S.A.
Hartman, Joyce I.	Cleveland	Lt. Comdr., U.S.N.
Hatfield, R. E.	Cincinnati	Lt. Comdr., U.S.N.
Hawk, Malcolm H.	Youngstown	Capt., U.S.A.
Hay, Marion	Dayton	1st Lt., U.S.A.
Heimann, Jos. V.	Lakewood	Capt., U.S.A.
Herbert, Jackson	Portsmouth	Capt., U.S.A.
Hiestand, Richard C.	Springfield	Capt., U.S.A.
Hillabrand, John F.	Toledo	Lt., U.S.N.
Hirsh, Leon S.	Cincinnati	1st Lt., U.S.A.
Hise, Fred R.	Canton	Lt. Comdr. U.S.N.
Hoerner, M. T.	Dayton	Major, U.S.A.
Hughes, Howard A.	Cleveland	Lt. (j.g.) U.S.N.
Hunt, John H.	Cincinnati	Lt. Comdr. U.S.N.

Name	City	Rank
Jacques, Richard H.	Columbus	1st Lt., U.S.A.
Jasper, Omer, J.	Cincinnati	Capt., U.S.A.
Johnson, David M.	Columbus	Lt. Comdr., U.S.N.
Johnson, Ivan S. C.	Wyoming	Capt., U.S.A.
Johnson, James B.	Columbus	1st Lt., U.S.A.
Johnston, G. R.	Medina	Lt. Comdr., U.S.N.
Jones, Daniel V.	Cincinnati	Lt., U.S.N.
Kanter, Aaron J.	Cincinnati	1st Lt., U.S.A.
Kaplan, Irwin	Cincinnati	1st Lt., U.S.A.
Keiser, Harold L.	Fremont	1st Lt., U.S.A.
Kerschgens, L. J.	Steubenville	Lt., U.S.N.
Kessler, Ralph J.	Cincinnati	1st Lt., U.S.A.
Khuon, Robert E.	Cincinnati	Capt., U.S.A.
Kidd, Robert A.	Columbus	Lt., U.S.N.
Kiefer, Charles F.	Cincinnati	1st Lt., U.S.A.
Koch, Carl A.	Cincinnati	Capt., U.S.A.
Krupkin, N. R.	Cleveland	Capt., U.S.A.
Kuhn, H. N.	Bellevue	Lt. (j.g.) U.S.N.
Lemert, Chas. C.	Cincinnati	1st Lt., U.S.A.
Levin, Isadore L.	Lorain	Capt., U.S.A.
Lewis, David R.	Grove City	1st Lt., U.S.A.
Lieber, M. L.	Canton	Capt., U.S.A.
Linn, Geo. G.	Cleveland	Lt. Comdr., U.S.N.
Liss, Emanuel C.	Columbus	1st Lt., U.S.A.
Lyons, W. F.	Coshocton	Lt. Comdr., U.S.N.
Manley, Jos. J.	Euclid	Capt., U.S.A.
Martin, John W.	Cleveland	Lt., U.S.N.
Maxwell, Jos. A.	Montpelier	Lt. (j.g.) U.S.N.
McFadden, Harry W.	Brecksville	Major, U.S.A.
McLin, Wm. M.	Dayton	1st Lt., U.S.A.
Miller, Fred H.	Dayton	Capt., U.S.A.
Miller, Jos. M.	Marion	1st Lt., U.S.A.
Minge, Raymond K.	Cleveland	1st Lt., U.S.A.
Moore, Chas. H.	St. Bernard	Capt., U.S.A.
Moorman, Thos. A.	Dayton	1st Lt., U.S.A.
Morris, Harry D.	Cleveland Heights	1st Lt., U.S.A.
Must, B. G.	Dayton	1st Lt., U.S.A.
Muzar, John E.	Mowrystown	Capt. U.S.A.
Nichol, Arthur D.	Shaker Heights	Capt., U.S.A.
Nosik, Wm. A.	Cleveland	Lt. (j.g.) U.S.N.
Novinsky, A.	Bethel	1st Lt., U.S.A.
Nulsen, Ray O.	Cincinnati	1st Lt., U.S.A.
Obetz, Robin C.	Columbus	Capt., U.S.A.
Odom, R. E.	Youngstown	Major, U.S.A.
Ormond, Alexander P.	Cuyahoga Falls	Capt. U.S.A.
Osgood, Fred P.	Toledo	Lt. Comdr. U.S.N.
Overley, H. Glenn	Loveland	1st Lt., U.S.A.
Overs, Paul F.	Spencer	1st Lt., U.S.A.
Owen, J. M.	Dayton	Capt., P.S.A.
Pease, H. T.	Wadsworth	Capt., U.S.A.
Pemberton, Paul A.	Cleveland	Capt., U.S.A.
Petraglia, A. A.	Dayton	1st Lt., U.S.A.
Picard, Gustav G.	Cleveland	Capt., U.S.A.
Powers, Earl J.	Blanchester	Capt., U.S.A.
Recroft, E. W.	Cleveland	1st Lt., U.S.A.
Reed, L. K.	Youngstown	Capt., U.S.A.
Roach, Fredk. E.	Lakewood	Capt., U.S.A.
Roberts, David J.	Akron	1st Lt., U.S.A.
Rossen, Jos. M.	Lakewood	Capt., U.S.A.
Ruch, R. O.	Lima	Capt., U.S.A.
Sacks, Leonard Z.	Cleveland	1st Lt., U.S.A.
Sakler, Barnet R.	Cincinnati	Capt., U.S.A.
Schnitker, Maurice	Toledo	Major, U.S.A.
Schoene, Robert H.	Columbus	1st Lt., U.S.A.
Schoolfield, C. B.	Upper Sandusky	Capt., U.S.A.
Seyler, L. E.	Dayton	Lt., U.S.N.
Shapiro, Isadore, A.	Toledo	Capt., U.S.A.
Shoupe, Thomas R.	Findlay	1st Lt., U.S.A.
Shrader, A. M.	Waverly	Lt., U.S.N.
Simon, Stanley D.	Cincinnati	Major, U.S.A.
Smith, Gordon A.	Elyria	1st Lt. U.S.A.
Somma, Fred F.	Dayton	1st Lt., U.S.A.
Speicher, Clyde M.	Cleveland	Lt. Comdr., U.S.N.
Spisak, Edward A.	Cleveland	Lt. (j.g.) U.S.N.
Spreen, Arthur H.	Cincinnati	Lt. U.S.N.
Stickley Louis P.	St. Bernard	1st Lt., U.S.A.
Taggart, W. B.	Dayton	Lt. Comdr. U.S.N.
Treister, Bert A.	University Heights	1st Lt., U.S.A.
Trostel, Wm. W.	Piqua	Capt., U.S.A.
Waisbrot, E. L.	Canton	1st Lt., U.S.A.
Wallace, Richard H.	Bexley	Capt., U.S.A.
Watkins, Richard S.	Cleveland	Lt. (j.g.) U.S.N.
Weaver, Samuel W.	Youngstown	Capt., U.S.A.
Webster, Frank B.	Bellefontaine	Lt., U.S.N.
Whitehead, R. N.	Bowling Green	Lt., U.S.N.
Wilcox, John M. III	Cleveland	1st Lt., U.S.A.
Williams, Harold L.	Lafayette	Capt., U.S.A.
Wirtschafter, Zolton T.	Shaker Heights	Major, U.S.A.
Wuest, Leonard J.	Cincinnati	Capt. U.S.A.
Yates, Ralph D.	Piqua	Lt. Comdr., U.S.N.
Zeligs, Mendel	Cincinnati	Lt. Comdr. U.S.N.
Zwick, Louis S.	Wadsworth	Capt. U.S.A.

WIN PROMOTIONS

The following Ohio physicians have been promoted to the rank indicated, since the November issue of The Journal went to press:

Name	City	Rank
Clifford, Richard V.	Girard	Lt. Comdr., U.S.N.
Halfhill, James W.	Lima	Major, U.S.A.
Jones, Paul	Stockdale	Lt. Col., U.S.A.
Meiling, Richard L.	Columbus	Major, U.S.A.
Patton, Thos. E.	North Jackson	Major, U.S.A.
Ramey, W. Orville	Cincinnati	Lt. Comdr., U.S.N.
Roller, Jay P.	Luckey	Capt., U.S.A.
Rosenblum, Earl	Steubenville	Major, U.S.A.
Urbanski, Walter J.	Cleveland	Capt., U.S.A.

NUMBER OF PHYSICIANS IN ARMED FORCES BY COUNTIES

Following is a breakdown of the 2297 Ohio physicians in the armed forces as of November 23 by counties. This list is unofficial. If there are errors in the tabulations The Journal would appreciate receiving corrections:

Adams	2	Guernsey	5	Muskingum	7
Allen	33	Hamilton	296	Noble	1
Ashland	10	Hancock	13	Ottawa	8
Ashtabula	16	Hardin	7	Paulding	2
Athens	11	Harrison	4	Perry	4
Auglaize	5	Henry	2	Pickaway	3
Belmont	8	Highland	8	Pike	2
Brown	4	Hocking	3	Portage	2
Butler	25	Holmes	2	Preble	8
Carroll	1	Huron	13	Putnam	5
Champaign	8	Jackson	1	Richland	40
Clark	27	Jefferson	26	Ross	15
Clermont	9	Knox	11	Sandusky	12
Clinton	6	Lake	16	Scioto	16
Columbiana	9	Lawrence	7	Seneca	10
Coshocton	4	Licking	17	Shelby	7
Crawford	9	Logan	8	Stark	82
Cuyahoga	554	Lorain	31	Summit	121
Darke	7	Lucas	139	Trumbull	26
Defiance	3	Madison	6	Tuscarawas	16
Delaware	5	Mahoning	87	Union	1
Erie	10	Marion	15	Van Wert	9
Fairfield	6	Medina	12	Vinton	2
Fayette	2	Meigs	1	Warren	3
Franklin	199	Mercer	5	Washington	6
Fulton	5	Miami	11	Wayne	10
Gallia	6	Monroe	1	Williams	8
Geauga	3	Montgomery	114	Wood	11
Greene	8	Morgan	1	Wyandot	3
		Total			2297

Coming Meetings

American College of Physicians, Philadelphia, April 13-16, 1943.

American Society of Anesthetists, New York, Dec. 10.

Fifth Annual Forum on Allergy, Cleveland, Jan. 9-10, 1943.

Western Surgical Association, Memphis, Dec. 4-5.

Society for the Study of Asthma and Allied Conditions, New York, Dec. 5.

Society of American Bacteriologists, Columbus. Dec. 28-30.

WAR NOTES

THE 68th Station Hospital Unit of the Army Medical Corps, comprised principally of Dayton and Miami Valley physicians and nurses, has been recently organized and is at present preparing for overseas duty with the Army, according to press reports. The unit was formed by Maj. David Taylor, Yellow Springs, and is at present at Madison Barracks, N. Y., for preliminary organization. Eventually its personnel will include 12 medical officers and 30 nurses.

Physicians who have been commissioned in the unit thus far are: Major Taylor, Capt. H. D. Bockoven, Verona; Capt. Fred Miller, Dayton; Capt. P. K. Champion, Dayton; Capt. John F. Torrence, Germantown; Lt. Paul Petraglia, Dayton; Lt. Fred Somma, Dayton; Lt. Albert V. Black, Dayton; Lt. C. E. Clark, Dayton; and Lt. Walter Reiling, Dayton. Several other Miami Valley physicians who expect to join the unit are awaiting commissions.

* * *

Lt. Comdr. W. M. Johnston, Akron physician, has been returned to the U.S. Naval Hospital, Treasure Island, Calif., for recovery from the severe shrapnel wounds he received in action on Guadalcanal in the Solomon Islands. Commander Johnston was serving with a Naval and Marine unit in the South Pacific when wounded, and he expects to return to duty about Jan. 1. Although his wounds were severe, his condition was not critical.

* * *

Col. Paul Jones, Stockdale physician, is chief of the surgical staff at the station hospital, Camp Davis, Wrightsville, N. Car. This is a 800-bed institution with work now under way on a 700-bed addition. Colonel Jones was recently elevated to his present rank from lieutenant colonel.

* * *

Maj. George Sackett, Shaker Heights, has recently been given charge of the radiology department of the new Moore General Hospital, a 1500-bed institution, at Swannona, N. Car. Major Sackett recently completed a course of training in Medical Corps administration at Atlanta, Ga.

* * *

Lt. Sim Galinson, Dayton physician serving with the Army Medical Corps, has been selected for a course of special training at the Mayo Clinic, Rochester, Minn. He will take a three-month course in special surgery.

* * *

Capt. Edwin L. Montgomery, Circleville physician serving as medical officer with Ohio troops in the South Pacific area, writes that he has inadvertently introduced Shakespeare to the soldiers of his outfit. Due to a shortage of reading materials, the enlisted men have borrowed the bard's works from the captain's library as a desperation measure, and he expects them to come home with new tastes in literature.

* * *

Lt. Col. Julien E. Benjamin, Cincinnati physician, was recently appointed chief of medicine at Lovell General Hospital, Ft. Devens, Mass., which is one of the Army's largest hospitals. Before going on active duty last July 5, Colonel Benjamin was assistant professor of medicine at the University of Cincinnati College of Medicine and chief of the out-patient service at Cincinnati General Hospital.

* * *

Speaking of Ohio physicians and warfare, it is a little known historical fact that Richard Jordan Gatling, M.D., an 1850 graduate of Ohio Medical College, was the inventor of the deadly repeating gun that bore his name. Dr. Gatling, who eschewed the practice of medicine to devote full time to inventing, developed this crude forerunner of the modern machine gun in order to make warfare so deadly that man would cease waging it. At the time of his death in 1903 he confidently believed he had achieved his purpose and thus brought lasting benefit to humanity.

* * *

Maj. Richard Meiling, Columbus physician, has been assigned to the Office of the Air Surgeon, Army Air Forces headquarters, Washington. He was recently promoted to his present rank.

* * *

Capt. John E. Dougherty, Canton physician stationed until recently in Australia, has been transferred to New Zealand, according to word received by his family.

* * *

Writing of his assignment at the Reception Center, Fort Sill, Okla., Col. G. P. Lawrence, Westerville, tells of the volume of work entailed in starting several hundred raw recruits daily on the road to good soldiery. "It keeps me busy," he says, "running the medical work, giving talks, and making inspections. Three other doctors, all lieutenants new to the Army, do most of the routine professional work, and we have 16 enlisted men to do the clerical work, dressings and treatments, guide the rookies through and keep the place clean. We all enjoy the work very much."

* * *

Lt. Richard Sanderson, former Wauseon physician now in the Army Medical Corps, has arrived safely at an unannounced location in the South Pacific area, according to word received by his parents.

* * *

Dr. and Mrs. Will F. Zeller, formerly of Columbus Grove, began Army careers simultaneously, he a first lieutenant in the Medical Corps and she accepted for officers' training by the Women's Army Auxiliary Corps.

* * *

Capt. J. W. Smith, Grand Rapids physician now in the Army Medical Corps, is having his second experience with modern warfare. In World War I he served with the Canadian Tank Corps and had reached London on his way to the front when the Armistice was signed.

* * *

Lt. J. W. Burrows, Erie Beach physician in the Army Medical Corps, has been sent to Rochester, Minn., for special training at the Mayo Clinic.

* * *

Lt. Comdr. Leonard A. Stack, Lorain physician serving with the Navy Medical Corps, was one of the Navy Day speakers at the celebration in his home town which opened a Navy recruiting drive there.

* * *

Tribute to his active interest in Scouting was paid to Dr. Don R. Printz, Ada physician recently commissioned a lieutenant in the Navy Medical Corps, by Boy Scouts and Scout officials of Ada at a Kiwanis Club meeting. Doctor Printz was presented a miniature gold tenderfoot pin as an expression of appreciation for his work with the Boy Scouts.

* * *

Capt. Thomas A. Munns, Oxford physician, was recently transferred from Bowman Field, Louisville, Ky., to Miami Beach, Fla., for special Air Corps training courses.

* * *

The good people of Germantown impressed Dr. John F. Torrence with the idea that he will be missed when he took leave of the community to become a Captain in the Army Medical Corps. At a meeting of the Rotary Club in his honor he was given the oath of office by Mayor Dan Anslinger and finger printed for Army records by Police Officer Elmer Bell. Later farewell dinners were given in his behalf by his Sunday School class and the American Legion post of which he is a member.

* * *

Dover Elks lodge members recently heard an address by Lt. Comdr. Max Shaweker, former Dover physician now stationed with the Navy Medical Corps at Norfolk, Va.

* * *

Maj. H. E. Wilkinson, Van Wert physician in the Army Medical Corps, was recently transferred from Fort Jackson, S. C., to Fort Barrancas at Pensacola, Fla., where he is serving as post surgeon of the station hospital.

* * *

Among the Army Medical Corps officers taking special training in the School of Aviation Medicine, Randolph Field, Texas, is Lt. Marlin R. Wedemeyer, Oak Hill physician.

* * *

A recent graduating class of Army Medical Officers from the Medical Field Service School, Carlisle Barracks, Pa., included Lt. Dalton Peelle, Wilmington.

* * *

Dr. Ernest Ekermeyer, former resident physician at the O. S. and S. O. Home, Xenia, has been commissioned a lieutenant in the Navy Medical Corps, according to information received by his family in New Bremen, the doctor's home. He had recently practiced in Tallahassee, Fla.

* * *

An Ohioan, Lt. Comdr. Edward C. Kenney, formerly of Bucyrus, was medical officer aboard the light cruiser Boise, which was given up for lost after an engagement in the Solomons and steamed into Philadelphia harbor triumphantly a month later. Commander Kenney was decorated for his bravery during the action because, according to a Navy news release, he removed wounded men from the shell-struck areas while under heavy fire, and "no wounded man under his charge died as a result of wounds received."

* * *

Lt. H. W. Klewer, Toledo physician, has been transferred from the U. S. Naval Hospital, Parris Island, S. C., to the School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md., for a course in venereal disease control. He will remain there until December 13.

* * *

Judging from a letter from Lt. Samuel Klatman, Youngstown physician, published in the *Bulletin* of the Mahoning County Medical Society, his experiences as Army medical officer in the

Alaskan outposts have been far from boring. Returning to Seattle after four months of travel aboard a troop transport, in which time he covered 15,000 miles, Lieutenant Klatman described his experiences with a task force which "dug in" on a small Aleutian island directly opposite Kiska after the Japs had seized that American outpost.

* * *

News of Dr. Frank Whitacre, former Sylvania physician now held prisoner by the Japs in the Philippines, was brought to his family by refugees from the Orient on the exchange liner Gripsholm. They reported that he is working at the internment hospital at Manila.

* * *

Lt. Comdr. Thomas P. Sharkey, one of the officers of the Navy Medical Specialists Unit organized in Dayton and sent into combat service shortly after the United States entered the war, has been returned to this country from the South Pacific area to recover from an illness. He was recently promoted to his present rank.

* * *

Maj. John E. Brown, Jr., Columbus physician, has been named head of the contagious diseases sub-section of the new 2000-bed Army hospital at Camp Campbell, Ky. Director of the medical section is Col Edwin F. Shaffer, a native of Columbus and a medical officer of the regular Army.

* * *

Maj. John R. McBride, Army Medical Corps officer and son of Dr. and Mrs. J. D. McBride, Hillsboro, has been awarded the Soldier's Medal for heroism on duty in Greenland. With his commanding officer, Col. Bernt Balchen, noted Arctic flier, Major McBride made a perilous trip through wild country to rescue two Army fliers who were injured when their plane crashed. The citation was sent to Doctor McBride in Hillsboro to hold for his son's return to the United States.

* * *

Lt. Comdr. T. E. Newell, Dayton physician serving with the Navy Medical Corps, is on land duty on an unidentified island in the South Pacific, according to a letter received by his family.

* * *

Another Youngstown physician whose description of life in the Army Medical Corps overseas is published by the Mahoning County *Bulletin* is Capt. Henry Sisek. He writes of medical work at a small 24-bed hospital on a tropical island base in the Pacific.

* * *

Maj. John A. Fisher, Cincinnati physician now an Army medical officer, was recently ordered to duty as chief of the genito-urinary section of Harmon General Hospital, Longview, Tex., a 1750-bed general hospital activated by the Army on Nov. 5. Previous to his assignment there, Major Fisher had been at the Army and Navy General Hospital, Hot Springs, Ark.

* * *

Lt. Comdr. W. Orville Ramey, Cincinnati physician, is Chief of Medicine at the U. S. Naval Hospital, Seattle, Wash. He was recently promoted to his present rank.

* * *

Lt. R. K. Ameter, Bryan physician, has been transferred from Mitchel Field, L.I., N.Y., to Randoph Field, Tex., where he will be trained in the School of Aviation Medicine.

* * *

Maj. Earl Rosenblum, Steubenville physician, is a Flight Surgeon with the U. S. Army Air Forces Bomber Command "somewhere in England." He writes: "The Journal has been a source of enjoyment for me, and I sincerely hope I continue to receive future issues." (You will, Major, if the postman can find you.—Ed.)

* * *

Dr. Harry J. Weber and his wife, Dr. Velda J. Weber, son and daughter-in-law of Dr. F. H. and Dr. Mary J. Weber, Worthington, recently began a long trek by plane to Ethiopia, where they will be medical missionaries in Addis Ababa, the capital city of the African county recaptured from the Axis and allied with the United Nations. Dr. Harry J. Weber lived in Worthington before studying medicine at the College of Medical Evangelists, Los Angeles.

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A large and invaluable collection of ceremonial knives collected during the last 25 years in India, Japan, Malaya, and South Pacific Islands was turned over to the scrap drive by Dr. Perry Burgess, Geneva-on-the-Lake. Doctor Burgess, president of the American Leprosy Foundation, assembled the collection while traveling in connection with his work for the foundation. Handles and hilts were carefully saved and accurate drawings of each of the blades were made in the hope that the originals might be duplicated after the war.

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Maj. Ervin S. Ross, Cincinnati physician, has been appointed Base Surgeon at the Base Hospital, Army Air Base, Rapid City, S. Dak. Notice of this change was mailed to *The Journal* by Capt. William A. Davin, Hamilton physician who is serving as executive officer at the Rapid City Base Hospital.

WAIVER OF DUES POLICY FOR MEMBERS IN ARMED FORCES TO BE CONTINUED BY STATE ASSOCIATION DURING 1943

By official action of The Council, the policy of waiving or remitting annual Ohio State Medical Association dues for members serving in the Army or Navy will be continued throughout the calendar year 1943.

This will apply to physicians who were members in good standing in the Association in 1942 through the payment or waiver of dues and to physicians who were completing their medical education in 1942 and are accepted into membership by a component county society in 1943.

The names of members now in the service will be automatically transferred to the 1943 membership rolls.

Restriction Placed on Manufacture and Sale of X-ray Equipment

Rigid restrictions on the manufacture and sale of new X-ray equipment have been set forth by the War Production Board in its General Limitation Order L-206, dated Oct. 20. Under the terms of this order, no firm may manufacture or assemble any X-ray equipment other than the type and quantity provided for in a schedule issued concurrently with the order, and the sale of X-ray equipment is prohibited except to the Army and Navy, the Maritime Commission, the War Shipping Administration, and qualified persons or institutions who have filed Form PD-556 and have received approval from the Director General for Operations. Copies of this form may be obtained from local offices of the War Production Board.

Equipment which comes specifically within the meaning of the order includes: Fluoroscopic equipment and therapeutic equipment; power units; radiographic, fluoroscopic, and therapy tables; photofluorographic units; cassette changers; tube stands; stationary grids; and Bucky diaphragms. The order does not apply to the use of rebuilt equipment or to any parts, accessories, or appliances used in connection with radiography, fluoroscopy, of therapy other than the items specifically named.

Dr. Udo J. Wile, professor of dermatology and syphilology in the University of Michigan Medical School, has been appointed medical director (R) in the U. S. Public Health Service for active duty with the Division of Venereal Disease Control. He will conduct a study of all new methods described in recent years by various clinicians for the intensive treatment of syphilis. He will also supervise the quarantine hospitals which the Public Health Service and the States are developing in a number of critical war areas.

New Revenue Act Removes Unfair Tax on Professional Man's Estate

The Revenue Act of 1942, H. R. 7378, enacted recently and signed by the President contains a provision for relief to the estate of a taxpayer in connection with uncollected accounts receivable on his books at the time of his death.

This provision is of special interest to physicians because, since 1934, estates of professional men have been required to pay income tax for all uncollected accounts receivable, regardless of their condition, for the year in which the death occurred. This has worked hardship in the cases of physicians who carried a large number of unpaid accounts receivable on their books over a period of years although they may not have anticipated collection of many of them.

Protesting against this obviously inequitable circumstance, groups of professional men sought remedial action in the Congress. Among them was the American Medical Association, which, through its Bureau of Legal Medicine and Legislation, filed a petition pointing out the medical profession's interest in the matter. It was supported in this action by The Council of The Ohio State Medical Association. As a result a provision was placed in the new act providing that the value of such accounts will not be added to the income of the tax payer for the year of death.

The U. S. Justice Department recently announced adjournment of the anti-trust trial against the American Optical Company, the Bausch & Lomb Optical Company and numerous eye glass manufacturers on advice from the Army and Navy that further trial at this time would "seriously impede the war effort". The trial, which has been in recess since May 28, will be suspended the department said, until "such time as the secretaries of war and navy determine that resumption of the case would no longer interfere with war production".

Christmas Seal Sale Goal Is Increased to $500,000

With an accelerated program of activities due to the increase in tuberculosis in war time, the Ohio Public Health Association, through its local county affiliates, launched the 1942 Christmas Seal Sale on November 23 and aimed at a goal of $500,000 for the state. Seals were mailed in time to arrive at the homes of prospective buyers on that date, and the sale is to continue through the Christmas season.

The sale of seals in Ohio last year totaled $461,464, according to officials of the public health association, and that represented a considerable oversubscription of the goal of $434,000. In the United States as a whole approximately seven and a half million dollars was raised for the anti-tuberculosis campaign in this manner in 1941.

CHRISTMAS SEALS

. . . . Protect Your Home from Tuberculosis

The money thus raised is distributed as follows: Eighty per cent is retained by the local group for use in the community, 15 per cent is turned over to the Ohio Public Health Association, and five per cent is forwarded to the National Tuberculosis Association.

Reason for the rise in the 1942 Ohio goal is the fact that the danger of tuberculosis spread and the incidence of the disease are usually heightened in time of war. This is attributed to increased physical stress, long hours of work, lack of rest and relaxation, shifting populations, inadequate nutrition in some areas, and overcrowded living conditions.

In support of this contention officials of the Ohio Public Health Association cite figures compiled by the National Tuberculosis Association which show that in England and Wales deaths from the disease increased 12 per cent from 1939 to 1941, which was twice the increase recorded in those countries in the period from 1914 to 1916. In Paris during the first half of 1941 tuberculosis deaths increased 10 per cent in spite of the fact that the population of the city decreased. In Canada last year, according to NTA figures, the rate of incidence of tuberculosis increased five per cent over the 1940 rate, and this was the first increase in that country for more than 15 years.

"To meet the challenge of an increase of tuberculosis," says a statement from the Ohio Public Health Association, "voluntary tuberculosis associations are attempting to expand their programs. Throughout the state these associations are cooperating with industry in health education programs and the examination of employees for tuberculosis. At the same time, they are intensifying their regular programs, working with official health departments and schools in diagnostic clinics and tuberculin testing programs and bringing to the public the facts about the prevention and control of tuberculosis through literature, films, and talks."

Attorney General Issues Opinion About Tuberculosis Hospitals

The following is the syllabus of Opinion No. 5584, recently issued by Attorney-General Thomas J. Herbert, with reference to the operation and maintenance of county tuberculosis hospitals:

(1) The trustees of a county tuberculosis hospital do not have custody of the funds appropriated for the maintenance and operation of such hospital, but such funds remain in the custody of the county treasurer. (2) Under provisions of Secs. 3139-11 and 3139-12, G. C., the county commissioners and not the trustees of a county tuberculosis hospital are authorized to provide for major replacements and additions to such hospital. (3) The trustees of a county tuberculosis hospital have authority to apply money received from patients and other sources, in addition to the amount appropriated from the general fund by the county commissioners, toward the operation and maintenance of such hospital. (4) When a special levy has been voted for the support of a county tuberculosis hospital, the county commissioners are not compelled to appropriate each year the entire amount derived from such levy, but the unappropriated balance must be held in the special fund set up in compliance with Sec. 5625-9, G. C., for future appropriation for the maintenance and operation of such hospital. (5) The county commissioners are without power to transfer to the general fund moneys produced by a special levy voted by the electors for maintenance of a county tuberculosis hospital, so long as such hospital is being maintained and operated. (6) Where the capacity of a county tuberculosis hospital is less than fifty beds, the county commissioners would have authority to serve as the board of trustees of such hospital, but they would not have such authority where the capacity of the hospital is fifty beds or more, even though the number of patients in the hospital was less than fifty.

Do You Know - - -

Maintaining a record of many year's standing, The Geauga County Medical Society was the first society to remit state dues for 100 per cent of its membership for 1943. Dr. Isa Teed Cramton, Burton, has been secretary-treasurer of the Society for 32 years.

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On August 1 there were 36,652 persons in state institutions in Ohio. The total included 22,309 men and 14,343 women.

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The Council on Medical Education and Hospitals of the American Medical Association on November 8 restored the University of Georgia School of Medicine to the list of approved medical schools maintained by the Council, with the status of being on probation.

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Major General Robert U. Patterson, U. S. Army, retired, formerly Surgeon-General, has been appointed dean of the University of Maryland School of Medicine and College of Physicians and Surgeons, and superintendent of the University Hospital in Baltimore.

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The Southern Surgical Association has cancelled its annual meeting which was to have been held in Savannah, Ga., December 8-10.

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Dr. Edward A. Winslow, professor of public health at Yale University School of Medicine since 1915, was awarded the William Thompson Sedgewick Memorial Medical during the annual meeting of the American Public Health Association in St. Louis, October 27.

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At a recent meeting of the Board of Trustees of the American Medical Association a committee of three was appointed to study the matter of hospital corporations engaging in the practice of medicine and of the improvement of relations between physicians and insurance companies.

* * *

The Cincinnati Board of Health recently added acute rheumatic fever and rheumatic heart disease to the list of diseases reportable by physicians. The action was taken following a recommendation by the Heart Council of Greater Cincinnati to the Academy of Medicine of Cincinnati, which in turn referred it to the board of health.

* * *

Dr. S. S. Goldwater, New York distinguished hospital administrator and consultant died on October 22, at the age of 69. He was a former president of the American Hospital Association and since 1940 had been president of Associated Hospital Service.

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Dr. Sidney McCurdy, formerly supervisor of the Medical Section of the State Industrial Commission, is medical director of the Plum Brook Ordnance Plant at Sandusky. Dr. Walter K. Stewart, formerly of Youngstown, is assistant medical director.

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The Brush Foundation, Department of Anatomy, Western Reserve University College of Medicine, has received from an anonymous donor a gift of $250,000 to be used for the research and educational work of the Foundation under the supervision of Dr. William W. Greulich.

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Applicants for licenses to practice medicine and surgery, and the limited branches, will be examined by the State Medical Board at Columbus, December 2-4.

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Dr. and Mrs. D. C. Houser, Urbana, celebrated their golden wedding anniversary recently. Dr. Houser is a former president of the Ohio State Medical Association.

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The main items of the $250,000 exhibit of the Hall of Medicine and Public Health of the New York World Fair, including the famous "transparent man" have been "lent" to the Cleveland Health Museum for at least the duration of the war. As Cleveland has the only permanent health museum in the country, it is likely that the "loan" will become permanent, according to Dr. Bruno Gebhard, director of the Museum.

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Eclectic Medical College, Cincinnati, which is no longer in existence, has been bequeated $46,000 by the late Dr. Thomas J. Heer, New York City.

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Dr. and Mrs. George F. Zinninger, Canton, were guests of honor at a family dinner recently celebrating their golden wedding anniversary. Among those who attended were two of their children, Dr. Pauline of Canton and Dr. Max M. of Cincinnati.

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The gold key, awarded annually by the American Congress of Physical Therapy, has been presented to Sister Elizabeth Kenny, Australian nurse, as the person "who has made the greatest contribution to the field of physical therapy during the past year."

In Memoriam

Charles Martin Alt., M.D., Baltimore; Starling Medical College Columbus, 1895; aged 74; member of the Ohio State Medical Association and the American Medical Association; died October 21. A past-president of the Fairfield County Medical Society, Dr. Alt practiced in Baltimore for 47 years. His widow, a brother and a sister survive.

Silas Osborne Barkhurst, M.D., Steubenville; Western Reserve University School of Medicine, 1888; member of the Ohio State Medical Association and the American Medical Association; died October 23. Dr. Barkhurst had practiced medicine for 54 years, including 12 years in Smithfield and 42 years in Steubenville. His ancestors were pioneer settlers in Jefferson County. Dr. Barkhurst was a deacon in the Presbyterian Church. Surviving are two daughters, a sister and a brother.

Ulysses S. G. Beam, M.D., Lima; Louisville National Medical College, 1895; aged 75; died October 11. Lima's first colored physician, Dr. Beam had practiced there for nearly 50 years. His widow and a brother survive.

Edward H. Bird, M.D., Dupont; Columbus Medical College, 1887; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died October 14. Dr. Bird practiced medicine in Dupont and Putnam County for 55 years. He was a member of the Masonic Lodge and the Methodist Church. Surviving are his widow, three daughters, a son, a sister and a brother.—Dr. Charles W. Bird, Continental.

Bushrod DuBois Buxton, M.D., Mount Gilead; Eclectic Medical College, Cincinnati, 1871; aged 93; died October 29. Dr. Buxton retired several years ago after more than 50 years practice in Morrow County. He was auditor of the county from 1880 to 1886 and for more than 20 years was clerk of the Mt. Gilead village council. Dr. Buxton had been a Mason for 70 years. His daughter survives.

William L. Carroll, M.D., Struthers; Baltimore Medical College, 1894; aged 77; former member of the Ohio State Medical Association and the American Medical Association; died September 22. Dr. Carroll had practiced in Toronto, Youngstown and Struthers.

Frank Jackson Crosbie, M.D., New Lexington; Starling Medical College, Columbus, 1902; aged 74; member of the Ohio State Medical Association and the American Medical Association; died October 17. Health commissioner of Perry County since 1924, Dr. Crosbie first practiced in Junction City, and later moved to New Lexington. He was an active member of the Perry County Medical Society, having served as president in 1920, legislative committeeman in 1925, and from 1928 to 1940, secretary-treasurer. Dr. Crosbie was a member of the Elks Lodge and the Knights of Columbus. His widow, two daughters and a son survive.

Homer Benton Harper, M.D., Barberton; University of Illinois College of Medicine, Chicago, 1906; aged 70; member of the Ohio State Medical Association and the American Medical Association; died September 14. A native of Highland County, Dr. Harper had practiced in Barberton for 30 years. He was a member of the staff of Citizens Hospital.

James Harris, M.D., Lakeland, Fla.; Cincinnati College of Medicine and Surgery, 1893; aged 80; died November 15. Dr. Harris formerly practiced in Cincinnati, moving to Florida for his health 25 years ago. His widow survives.

Albert Andrew Kohler, M.D., Akron; Western Reserve University School of Medicine, 1890; aged 79; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 16. A resident of Akron for 72 years, Dr. Kohler was widely known as a practicing physician and was prominent in Masonic circles. He had been a member of the Summit County Medical Society since February 3, 1891, and was a member of the staff of Akron City Hospital. Dr. Kohler was health officer of Akron from 1891-1893 and from 1896-1916. His widow and a brother survive.

Lewis K. Maxwell, M.D., Toledo; Cleveland University of Medicine and Surgery, 1883; former member of the Ohio State Medical Association and the American Medical Association; died October 29. Dr. Maxwell retired in 1940 after practicing medicine in Toledo for many years. Surviving are his widow and a son.

James Ross Mossgrove, M.D., Steubenville; University of Pennsylvania School of Medicine, Philadelphia, 1897; aged 68; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 28. Dr. Mossgrove practiced medicine in Pittsburgh for 3 years and after postgraduate training abroad, opened an office in Steubenville specializing in eye, ear, nose and throat. He practiced there for 40 years. Dr. Mossgrove has served as secretary and vice-president of the Jefferson County Medical Society. He was a member of the Sons of the American Revolution, Elks Lodge, Masonic Order, Presbyterian Church and the Rotary Club. A daughter and two sisters survive.

Walter G. Musekamp, M.D., Cheviot; Ohio Medical College, 1893; aged 71; member of the Ohio State Medical Association and the American Medical Association; died September 26. In ill health for a year and a half, Dr. Musekamp had practiced in Cheviot for nearly 50 years. He was a member of the staffs of Cincinnati Deaconess and Good Samaritan Hospitals. Dr. Musekamp was active in the Hamilton County and the Cheviot Republican Club, and was formerly treasurer of the village of Cheviot. He was a member of the Masonic Lodge. His widow, a son and two sisters survive.

Edward Ambrose Secoy, M.D., Darbyville; Physio-Medical College of Indianapolis, 1899; aged 67; died August 26. Dr. Secoy was a former mayor of Darbyville and had served on the Advisory Council of the Pickaway County Board of Health. He previously practiced in Athens County. Surviving are his widow, a daughter and two brothers.

Silas Sterling Stahl, M.D., Franklin; St. Louis University School of Medicine, 1905; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 6. He practiced for a time in St. Louis and Albian, Ill., later moving to Franklin, where he was located for 35 years.

Charles Edward Vance, M.D., Middletown; Starling Medical College, Columbus, 1883; aged 84; died October 16. Dr. Vance practiced in Gas City, Indiana until 1913. A son survives.

Dr. Means Named Full-Time Director Of X-Ray Laboratory

Appointment of Dr. Hugh J. Means, Columbus, to the full-time position of Director of the X-ray Laboratory of University Hospital and his elevation to the rank of Professor of Roentgenology at the Ohio State University College of Medicine were announced recently by Dr. Leslie L. Bigelow, Dean of the College and Superintendent of the Hospital. These changes became effective Dec. 1.

Dr. Means had previously been Associate Professor of Roentgenology at the college and served as part-time staff roentgenologist at the hospital. However, according to Dean Bigelow, the X-ray department of the hospital has been enlarged to a full service department by this change.

A graduate of the University of Pennsylvania School of Medicine, Dr. Means is a diplomate of the American Board of Radiology. He is a member of the American Roentgen Ray Society, the Radiological Society of North America, Inc., and the American College of Radiology.

WATCH FEBRUARY ISSUE FOR INCOME TAX INFORMATION

Regulations governing income tax returns for 1942 and the Victory Tax for 1943 are not yet available, but as in previous years *The Journal* will carry a detailed explanation of all tax measures as they affect physicians, in the February, 1943 issue.

Fifth Annual Allergy Forum To Be Held in Cleveland, Jan. 9-10

The Fifth Annual Forum on Allergy will be held in the Hotel Statler, Cleveland, the week end of January 9 and 10, 1943. This Forum will offer in most intensive presentation both the new and the old in allergy, and the meeting will be characterized by its use of all the various types of instruction.

Formal lectures, special talks, dry clinics, study groups, moving pictures, Kodachromes, panel discussions, ending with an "Information on Allergy, Please," will all be used to teach the physicians of the United States and Canada. Not only will specialists in this new field of internal medicine gather but also those whose interests are in allied fields of medicine will be welcome, for in war time every physician is called upon to advise and treat allergic patients. This is especially true of those in internal medicine, diseases of children, diseases of the skin, diseases of the eye, diseases of the nose and throat, as well as those engaged in basic research in immunology.

A course in immunology as it applies to allergy will be given the week before by Dr. Eckers and associates to a limited number of physicians. Any physician interested in either or both of the foregoing is invited to write Dr. Jonathan Forman, 956 Bryden Road, Columbus, Ohio, for copies of the printed program and registration blanks.

Among the 58 allergists who will participate in the program are the following from Ohio: Dr. Milton B. Cohen, Cleveland; Dr. Karl D. Figley, Toledo; Dr. Karl D. Way, Akron; Dr. Earl L. Netherton, Cleveland; Dr. J. Warrick Thomas, Cleveland; Dr. Harry Hauser, Cleveland; Dr. George L. Rockwell, Cincinnati; and Dr. Forman.

Members of the Cleveland Committee on Arrangements are: Dr. Benjamin Nozik, Dr. William P. Garver, Dr. Harold J. Friedman, Dr. Paul G. Albrecht, Dr. Ryan P. Estes, Dr. Thomas and Dr. Cohen.

Dr. Arthur Coca, New York, will receive the Forum's Gold Medal and will give the annual Forum lecture on Sunday afternoon, January 10.

Former Member of The Council Describes Work at Big Naval Hospital; Says Each Day is "Fascinating"

LETTERS from Ohio physicians serving as medical officers who write of life with the Army and Navy make interesting reading for home-front physicians and serve to keep *Journal* readers informed of the doings of their colleagues in uniform.

Below is a letter to the Editor of *The Bulletin* of the Columbus Academy of Medicine from Lt. Comdr. H. M. Clodfelter, Columbus, who was Tenth District Councilor of the State Association at the time of his call to active duty by the Navy who is stationed at the Naval Hospital, U. S. Naval Air Station, Jacksonville, Florida.

"The reported bugbear of 'bookwork' by Navy doctors is not what it has been reported to be. The care of the patient is primary. There is nothing spared in his study while a diagnosis is being made, and the same is true for his treatment after diagnosis has been established.

"The reports are in reality only a minimum of what would be necessary to convey to another doctor in a distant city an accurate picture of the patient. Instead of the doctor keeping a record in his own files, each patient is furnished with a health record which follows him wherever the Navy may send him. The hospital records, which are similar to those employed in all hospitals, are kept by the hospital in its own record system. All I have to say, so far, is that I have not been able to make a single suggestion as to any short cuts and I take my hat off to the Navy men who have perfected the plan of medical records as used.

"In the Navy we do not have to count sheets. We are responsible for the proper administration of our wards and on certain days, in proper turn, we are the Officer of the Day, at which time we are shouldered with the full responsibility of hospital management. The Commanding Officer and the Executive Officer as well as the heads of the various departments are available at all times if and when needed. Incidentally, Capt. L. L. Pratt, our Commanding Officer of the Naval Hospital here, is a graduate of Old Starling Medical in 1907. Many of the Columbus doctors will remember him and his family as being from around Bellefontaine, in Logan County.

"This is one of several new Naval Hospitals large enough to provide anticipated needs with full and complete equipment. It is really some organization. There are all kinds of wards and rooms, a brig, a library, recreation rooms, auditorium, Ship's Service (where we can buy almost everything, Coca-Cola to shirts), Nurses home, corpsmen (Navy male nurses) quarters. The staff is a most excellent one. There is a free exchange of ideas with enough banter to make it pleasant and interesting. We all see and know about all of the interesting cases, and with a hospital as large as this one it makes the medical day always fascinating. Consultations are frequent and everyone does what he is best fitted to do. A nose and throat man does just that, even the obstetrician does the obstetrics (Navy men have wives, too), and X-ray men do X-ray work. A wide open staff meeting is held each Friday afternoon.

"The climax of the week comes on Saturday morning—inspection. Everything must be spotlessly clean, the Venetian blinds, the tops of the doors, every piece of silverware and every kitchen utensil must be clean and in its proper place. Every patient who is able must be at his bed at attention while the bed patients of course remain in bed. It is quite a thrilling climax to a week of hard work. A Four-O rating, which is tops, is always most welcome after inspection by the Commanding or Executive Officer.

"All in all, the medical service here is all that anyone could desire. The setting, overlooking the four-mile-wide river, is perfect. The Florida climate is hot. We are in war and it is mighty lonely without the family, but let us all do our small part to help win this war and help maintain what we have loved and cherished in these good old United States."

New Venereal Research Project

A new project for research in veneral disease control, to be operated by Dr. H. Worley Kendell, Dayton, in conjunction with the U. S. Public Health Service, was announced recently. Located in the old Wesley Memorial Hospital, Chicago, this new project will be a quarantine hospital in which infected prostitutes will be isolated for purposes of clinical research. It is to be financed by an appropriation of $271,000 approved by the Federal Works Agency under the Lantham Act.

Doctor Kendell is director of the Kettering Institute for Medical Research, Miami Valley Hospital, Dayton, and has been engaged for some time in cooperation with Dr. Walter M. Simpson and Dr. Donald M. Rose, who are presently in military service, in research on artificial fever therapy for syphilis. He will be assisted in his new venture by professional and technical personnel furnished by the Public Health Service.

Activities of County Societies

First District

(COUNCILOR: L. HOWARD SCHRIVER, M.D., CINCINNATI)

BUTLER

A symposium on fractures was presented by Dr. John A. Judy, Dayton, at the regular meeting of the Butler County Medical Society Nov. 19 at Middletown Hospital. Dr. D. M. Blizzard, Middletown, followed the symposium with a demonstration and opened the discussion.—Mabel Gardner, M.D., secretary.

CLINTON

Medical phases of civilian defense were discussed by Dr. Robert Conard, Wilmington, chairman of the Ohio Procurement and Assignment Committee, at a meeting of the Clinton County Medical Society held at the General Denver Hotel, Wilmington, Oct. 6.—News clipping.

HIGHLAND

The following officers were installed at the regular luncheon meeting of the Auxiliary to the Highland County Medical Society held Nov. 4 at the Highland House, Hillsboro: Mrs. J. D. McBride, Hillsboro, president; Mrs. J. Martin Byers, Greenfield; vice president; Mrs. W. B. Rhodes, Hillsboro, president elect; and Mrs. J. C. Bohl, Hillsboro, secretary-treasurer.—Mrs. J. C. Bohl, secretary.

WARREN

"Common Fractures of the Forearm" was the topic discussed by Dr. J. A. Judy, Dayton, at the regular meeting of the Warren County Medical Society held Oct. 6 at the Golden Lamb Hotel, Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

MIAMI

Members of the Miami County Medical Society at their regular meeting Nov. 6 at Stouder Memorial Hospital, Troy, heard Dr. Robert C. Austin, Dayton, discuss "Present Day Concepts of the Management of Thyroid Disease."—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Vinton E. Siler, Cincinnati, discussed the surgical and medical management of burns at the regular meeting of the Montgomery County Medical Society held Nov. 6 in the society's headquarters' auditorium in Dayton—E. McCall Smith, president.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

Two papers on problems confronted in a mental hospital were presented at the meeting of the Lima and Allen County Academy of Medicine Nov. 19 at Lima State Hospital. Dr. E. H. Crawfis, of the hospital staff, discussed "Elective Shock Therapy" and Dr. L. O. Dillon, also of the hospital staff, spoke about "Surgery in a Psychiatric Hospital."—Chester Badertscher, M.D., Secretary.

Fourth District

(COUNCILOR: A. A. BRINDLEY, M.D., TOLEDO)

LUCAS

The Academy of Medicine of Toledo and Lucas County presented the following programs during November:

Nov. 6—A general Academy meeting held in conjunction with the annual postgraduate program of the Medical Institute of the University of Toledo. Guest speakers were Dr. John J. Moorhead, professor of surgery, New York Post-Graduate Medical School, and Dr. Brien T. King, Seattle surgeon. Dr. Moorhead discussed "War Wounds" and "Surgical Experiences at Pearl Harbor" and Dr. King spoke of various neck infections and described "a new and function restoring operation for bilateral abductor cord paralysis." This session was held at the university.

Nov. 13—Section on Pathology, Experimental Medicine, and Bacteriology, held at Academy headquarters. Dr. Allen Graham, Cleveland, discussed "Cancer of the Breast."

Nov. 20—Section on Medicine, held at Academy headquarters.

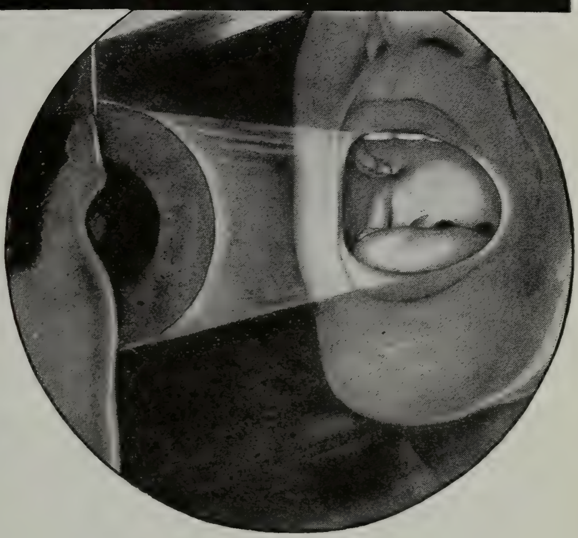
Members of the Auxiliary to the Academy have been participating in first aid and nutrition classes designed especially for doctors' wives.—Bulletin.

WOOD

Dr. Joseph Weber, assistant professor of chemistry at Bowling Green State University, discussed "Osmotic Pressure and pH in (CQ) Relation to Blood" at the regular meeting of the Wood County Medical Society held Oct. 22 at the Falcon's Nest on the University Campus. Members of the Society found Dr. Weber's presentation both valuable and interesting, particularly

Pontocaine Hydrochloride IN

RHINOLARYNGOLOGY



FOR topical anesthetization of the mucous membranes of the nose and nasopharynx, a 2 per cent concentration of Pontocaine hydrochloride need not be exceeded. In many cases, a solution of lower strength (0.5 or 1 per cent) is adequate.

The procedures which can be carried out under surface anesthesia include cauterization or removal of turbinates, puncture and irrigation of the sinuses, removal of polypi, and painful examinations.

For endolaryngeal procedures, such as removal of polypi, puncture of cysts, cauterization of laryngeal tubercles, and biopsy, Pontocaine hydrochloride is applied with a dropper or spray in the same manner as cocaine.

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since it showed the evolution of several standard modern medical procedures.—D. R. Barr, M.D., Journal Correspondent.

Fifth District

(COUNCILOR: EDGAR P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following programs were presented in general and sectional meetings of the Cleveland Academy of Medicine during November:

Nov. 6—Clinical and pathological section, meeting at St. Luke's hospital. Speakers, all Cleveland physicians, and their topics were: Dr. Theodore Willis, "Ununited Fractures of the Neck and Femur;" Dr. Robert Barney, "General Considerations of Pemphigus;" Dr. H. H. Bromley, "Aspiration Pneumonia (post-partum);" Dr. D. D. Brannan, "Internal Biliary Fistulae;" and Dr. Russell McGinnis, "Total Colectomy, Ulcerative Colitis."

Nov. 11—Pediatric Section meeting, Herrick Room Medical Library. Dr. E. P. McCullagh, head of the department of endocrinology and metabolism, Cleveland Clinic, discussed "Practical Endocrine Therapy in Children."

Nov. 13—Joint meeting of the Experimental Medicine Section and the Cleveland Section of the Society for Experimental Biology and Medicine, Institute of Pathology. Discussants and their subjects were: Dean F. Davies, Alfred H. Free, Ph.D., and Victor C. Myers, Ph.D., "The Effect of Sulfanilamide on the Acid Base Equilibrium of the Dog;" Jack R. Leonard and Alfred H. Free, Ph.D., "Serum Phosphorus Changes during Absorbtion and Metabolism of Glucose, Galactose, and Xylose;" D. E. Gregg, Ph.D., W. H. Pritchard, M.D., and R. E. Shipley, M.D., "Augmentation of Right Coronary Inflow during Pulmonary Artery Stenosis."

Nov. 18—Industrial Medicine and Orthopedic Section. St. Vincent's Charity Hospital. Following a presentation of acute fracture cases by the hospital staff, the following speakers were heard: Dr. E. P. Neary, "Arterial Disease of the Extremities;" Dr. J. Robert Andrews, "Planigraphy;" Dr. J. G. Brady, "Presentation of Fractures."

Nov. 20—Fifth Annual Lower Lecture presented by the Academy. Dr. Alfred Blalock, professor of surgery at the Johns Hopkins University Medical School, discussed "Surgical Shock."—Bulletin.

GEAUGA

The Geauga County Medical Society held five meetings between April and November of this year. At three of these meetings papers were given by guest speakers. The June meeting was addressed by Dr. C. P. Titus, a dental surgeon from Cleveland, on the subject, "Fractures of the Jaw," including treatment of infectious wounds in connection with jaw fractures. Dr. R. R. Gould of Windsor Hospital, Chagrin Falls, spoke on "Nervous and Psychopathic Diseases," at the August meeting, and Dr. W. E. Allen, Cleveland, was the speaker at the September meeting, his subject being "Breast Milk Versus Artificial Feeding." The October meeting was devoted to business, including the election of the following officers for 1943: Dr. D. A. Price, Chardon, president; Dr. R. Keith Miles, Thompson, vice-president; Dr. Isa Teed Cramton, Burton, secretary-treasurer.—Isa Teed Cramton, M. D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

A colored talking movie on gastric surgical and medical problems was shown to members of the Mahoning County Medical Society at their regular meeting Nov. 17 and Youngstown South Side Hospital. Later there was general discussion of problems confronting the home-front physician.—Bulletin.

PORTAGE

"Minor or Office Surgical Procedures" was the topic discussed by Dr. Ernest Bright, Cleveland, at the regular meeting of the Portage County Medical Society Nov. 5 at Robinson Memorial Hospital, Ravenna—Emily Widdecombe, M.D., Secretary.

STARK

Mrs. Dale P. Osborn, Cincinnati, president of the Women's Auxiliary to the Ohio State Medical Association, was a guest speaker at the meeting of the Auxiliary to the Stark County Medical Society held Oct. 12 at the Alliance Women's Club. Another speaker was Mrs. Carl Munn, Alliance, who told of her experiences during the Pearl Harbor attack.—News Clipping.

SUMMIT

Members of the Summit County Medical Society viewed a sound motion picture entitled

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"Peptic Ulcer" at their regular meeting Nov. 3 at the Akron City Hospital Nurses' Home.—Bulletin.

Seventh District

(COUNCILOR: CARL A. LINCKE, M.D., CARROLLTON)

TUSCARAWAS

A short business meeting and a discussion of the current status of local Civilian Defense problems constituted the program of the regular meeting of the Tuscarawas County Medical Society held Nov. 12 at New Philadelphia City Hall.

The Auxiliary to the Society met at the same time at the home of Dr. and Mrs. W. H. Curtiss, Uhrichsville and sewed for Junior Hospital during the meeting.—D. M. Ceramella, M.D., Sec.

Ninth District

(COUNCILOR: GILBERT R. MICKLETHWAITE, M.D., PORTSMOUTH)

SCIOTO

Members of the Hempstead Academy of Medicine, at their regular meeting Oct. 12 at Portsmouth hospital, discussed problems of civilian health in wartime and the preservation of local physicians' practices who have joined the armed forces. Dr. George Blume, Portsmouth, was appointed secretary-treasurer to fill the unexpired term of Dr. Sol Asch, who is serving in the U. S. Public Health Service.

Mrs. C. M. Fitch was named president of the Auxiliary to the Academy at its election meeting Oct. 14. Other new officers are: Mrs. A. P. Hunt, vice president; Mrs. Milton Levine, secretary; Mrs. C. L. Ferguson, treasurer; and Mrs. Carl Braunlin and Mrs. J. W. Daehler, directors. The Auxiliary was also given a sum of money by the Academy for the purpose of purchasing Christmas gifts for local physicians in the armed forces.

Tenth District

(COUNCILOR: GEORGE T. HARDING, III, M.D., COLUMBUS)

FRANKLIN

Dr. Charles W. Pavey, assistant professor of obstetrics at Ohio State University College of Medicine, talked about "Significance and Control of Edema in Pregnancy" at the meeting of the Columbus Academy of Medicine at the Columbus Art Gallery Nov. 2.

On Nov. 16 the Academy, in conjunction with the Ohio State University and the Office of Civilian Defense, presented the first of three two-hour courses on "Medical Aspects of Chemical Warfare" as part of the regular Academy program. Speakers were Dr. Charles A. Doan, Dr.

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E. Harlan Wilson, and Dr. C. S. Smith, all of the College of Medicine faculty. Second and third meetings of the series were held Nov. 23 and Nov. 27 at the University Hospital.—Bulletin.

A question and answer period on health education, conducted by Dr. Jonathan Forman, Columbus, editor, *The Ohio State Medical Journal*, comprised the program for the regular meeting of the Woman's Auxiliary to the Columbus Academy of Medicine held simultaneously with the Nov. 16 meeting of the Academy at the Columbus Art Gallery.—News clipping.

Eleventh District

(COUNCILOR: ROSS M. KNOBLE, M.D., SANDUSKY)

RICHLAND

Dr. R. D. N. Brown, Mansfield, discussed physiotherapy at the regular meeting of the Richland County Medical Society held Nov. 19 at the Mansfield General Hospital.—John F. McHugh, M.D., secretary.

LORAIN

"The Medical Management of the Elderly Patient" was the topic of Dr. John Tucker, Cleveland, when he addressed the Lorain County Medical Society at its regular meeting Nov. 10 at the Lorain Country Club.—L. H. Trufant, M.D., secretary.

WAYNE

Dr. John J. Sutter, county health commissioner, discussed the status of draftees rejected for lung lesions and other current public health problems at the regular meeting of the Wayne County Medical Society Oct. 23 in the County Health Department offices, Wooster—R. C. Paul, M.D., secretary.

Annals Suspended

One of the first casualties among publications in this World War is the *Annals of Medical History* which suspends publication with the November issue. This Journal has been outstanding both in its format and its content throughout all of its 124 numbers. Its loss can in no way be made up by the *Bulletin of Medical History* which serves an entirely different function as an organ of the Institute of Medical History at the Johns Hopkins University and the American Association of Medical History. It is a sad commentary on the American profession that this magazine has always been published at a considerable loss and it is most unfortunate that the War compels its suspension. It is but another proof that nothing good ever comes out of war.—The Editor.

Ironton—Dr. William F. Marting was Grand Marshal of the local Armistice Day and War Bond Parade.

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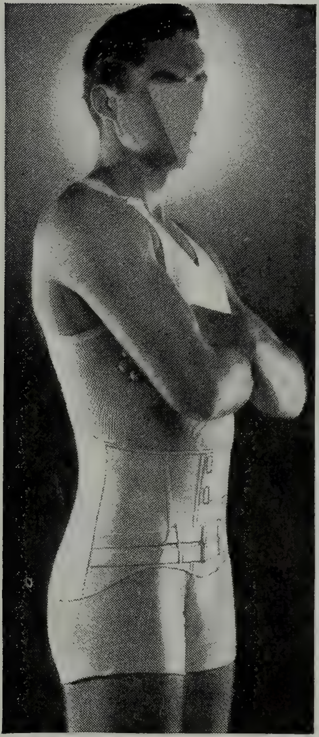

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Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Kathryn F. Croll, Perrysburg, and 1st Lt. Kenneth B. Browne, Whitehouse; Miss Roberta Jane Schulz, Columbus, and Dr. Richard A. Brunner, Abington, Pa.; Dr. Marie Burkey, Youngstown, and 1st Lt. Paul E. Krupko, Mt. Clemens, Mich.; Miss Frances Binegar, Columbus, and Lt. (j.g.) Howard N. Kuhn, Bellevue; Miss Dorothy Bernstein and Dr. Adrian Diamond, Cincinnati; Yolando Dilgarde and 1st Lt. Marvin S. Freeman, Cleveland; Miss Jean McCracken and Lt. (j.g.) Francis O. Fry, Cleveland; Miss Anna Ruth Provoznik and Dr. Harry C. Harris, Elyria; Miss Bette Rebecca James and Dr. Joseph M. Herbert, Youngstown; Miss Jennie Marie McCready and Dr. Joel Y. Marshall, Cleveland; Miss Kathryn Elizabeth Moore and Dr. Franklin C. Schlueter, Cincinnati; Miss Jane Wiegman, Fremont, and 1st Lt. Fred R. Scroggin, Cincinnati; Miss Florence Hoffman and 1st. Lt. J. R. Williams, Eaton; Miss Hylda Marie Grossenbacher and Dr. Maurice G. Wince, Akron; Miss Ilse Rodenfeld, Rochester, N.Y., and Dr. Henry Bachman, Delaware; Miss Ethel Kewley, Bedford, and Dr. John D. Bibbs, Cleveland; Miss Evelyn Helen Dubin, Shaker Heights, and 1st Lt. E. D. Engelman, Chillicothe; Miss Eleanor Ruth Claudy and Dr. Frank M. Geiser, Cleveland; Miss Dorothy Alice Tohms and Lt. (j.g.) Richard S. Watkins, Cleveland.

New Gastroenterological Journal To Appear On January 1

A new medical journal entitled **Gastroenterology**, will make its appearance Jan. 1, 1943, and will be published monthly, according to an announcement by the American Gastroenterological Association, which will own the magazine and whose official publication it will become. **Gastroenterology** will be published by Williams and Wilkins Company, Baltimore, and the subscription price will be $6.00 per year.

After June, 1943, Dr. Walter C. Alvarez, Rochester, Minn., will be editor of the new journal. Assistant editor will be Dr. A. C. Ivy, professor of physiology and pharmacology at Northwestern University Medical School, and manuscripts should be sent to him at 303 E. Chicago, Ave., Chicago, Ill. Dr. V. C. Myers, Cleveland, will be one of the members of the editorial board.

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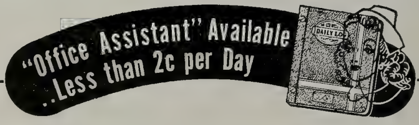

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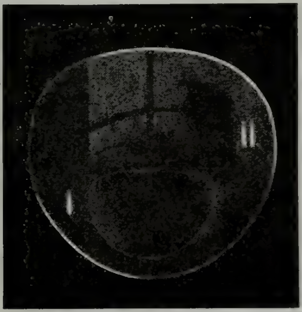

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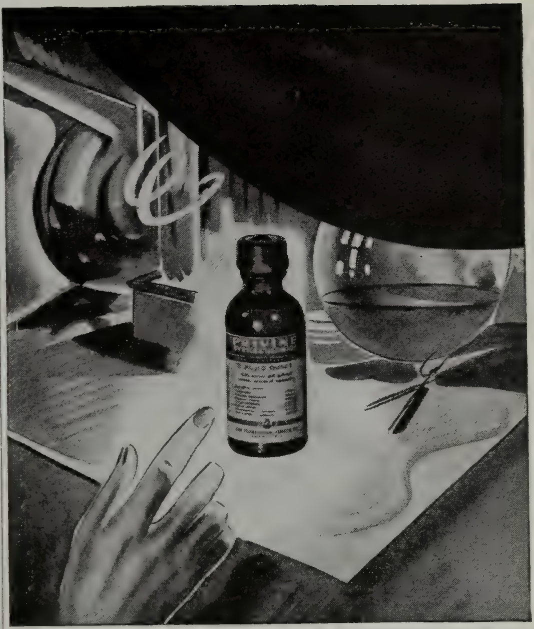

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News Notes

Akron—Dr. James G. Kramer spoke on "Poliomyelitis" at a meeting of the Kent Rotary Club.

Bowling Green—Dr. Leabelle I. Ross, formerly on the staff of the Cleveland State Hospital, has been appointed physician for Bowling Green State University.

Cincinnati—Dr. M. F. McCarthy spoke on "Poems and Background", at a meeting of the Oxford Woman's Club.

Cleveland—Dr. John A. Toomey spoke on "Present Day Methods of Treating Poliomyelitis" at a meeting of the Ohio State Chapter of the American Physiotherapy Association.

Columbus—"The Importance of Nutrition in the War Effort", was the topic discussed by Dr. Jonathan Forman at a meeting of the Marysville Kiwanis Club.

Columbus—Dr. Robert A. Evans has been appointed acting health commissioner of Franklin County on a part-time basis, to serve during the absence of Dr. H. L. Mitchell, now a Captain in the Army Medical Corps.

Delaware—The importance of eliminating preventable diseases was emphasized by Dr. Elizabeth Workman, Delaware County health commissioner, at a meeting of the Bellpoint P.T.A.

Elyria—Dr. S. F. Basinger became acting city health commissioner on September 15, to serve during the absence of Dr. Harold A. Robinson, now a lieutenant in the Army Medical Corps.

Forest——Dr. J. F. Holtzmuller bagged a 19-point deer and a bull moose on a hunting trip in Canada.

Ironton—Dr. Ralph Massie was re-elected president of the Board of Trade.

Jefferson—Dr. C. C. Crosby has been reappointed health commissioner of Ashtabula County for a two-year term.

Loudonville—Dr. N. W. Neptune, who retired from active practice in 1929, has reopened his office.

Ravenna—"Infantile Paralysis," was the topic discussed by Dr. P. L. Harris, Portage County health commissioner, at a meeting at the New Milford community house.

Willoughby—Dr. Margaret Richey, who practiced in China from 1924 to 1940, was the speaker at a meeting of the Junior Women's Club of the Methodist Church.

Zanesville—New staff officers of Good Samaritan Hospital include Dr. Charles Roach, president; Dr. H. B. Kauffman, Philo, vice-president and Dr. Robert S. Martin, secretary.

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Destruction of barracks at Wheeler Field, T. H., December 7, 1941. Photo by U. S. Army Signal Corps.

Lessons from Pearl Harbor

OUT of the chaos and confusion—the burns, lacerated wounds and compound fractures—that was Pearl Harbor on that first Sunday of December, 1941 – have come many lessons. Not the least among them is the value of the sulfonamides—used topically for the management of the potentially infected traumata.

Field conditions were ideal for the production of Clostridial infections—yet the incidence of gas gangrene was remarkably low and resulted in no deaths. Hospital facilities and surgical skill were hard-pressed and surgical operations were delayed from hours to days. Due in no small measure to the use of the sulfonamides, postoperative mortality was only 3.8 per cent, and most of these fatalities were from shock and hemorrhage.

Topical use of sulfonamides is assuming increasing importance not alone in military practice but in industry and civil life. These compounds should be regarded as an important adjunct to surgery, regardless of whether the surgeon is dealing with grossly contaminated wounds or maintaining asepsis in his operative field. Further studies must, of course, be made to determine the method of application best suited for each type of wound.

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The Physician's Bookshelf

"CLIMATE MAKES THE MAN"

War and these dark days tend to make us all aware that humanity is not entirely its own lord and master. Our laboratory-gauged egotism is being replaced by the kind of humility that was Jesus'. Science, as it goes farther into the influence of environment upon our souls, strengthens that humility in revealing the control that ecology, diet, soil depletion, weather, and climate, have over our lives and our conduct. So far as we know, the film of life in this universe is a very thin one on this earth. Five factors influence the presence of life in this thin film of soil, water and air. They are: oxygen, moisture, food, pressure, temperature.

Our fellow member, Dr. Clarence A. Mills, Professor of Experimental Medicine in the University of Cincinnati, and well known authority on the influence of climate upon man, has set forth the results of his 25 years of research in a most interesting and stimulating book, (**Climate Makes The Man, Clarence A. Mills, Ph.D., M.D., $3.00, Harpers, New York**). He has written it in an easy and popular way for the general public. In words that all can understand he explains our individual relation biologically to the climate of the community in which we live. The book treats primarily of the influence of temperature upon man, and is therefore the logical outcome of the author's first bit of research which he did in 1917 in collaboration with his young bride, "The Influence of Heat Upon the Thyroid Gland." The author first paints in a background reminding us that when man was more primitive he was also more humble, and worshipped the Sun.

Today Science has accumulated a considerable evidence which helps to put man in his place again within the cosmic scheme of things, for the sun and the planets do exert, it is now known, an indirect but powerful effect upon all life through the control of climate.

Comparing animals with engines, Dr. Mills points out that our bodies are rather inefficient machines, because they have to produce four units of wasted heat for every unit of energy they can use to keep life's processes going. The author devotes this volume pretty largely to discussing the effect upon man of those long term averages of atmospheric conditions which we commonly call climate, and not the day to day changes which are called weather. Such a wasteful machine must place a good deal of dependence upon its radiating system for the dissipation of its useless heat. We have a pretty good radiator in our skin and circulatory system. This works best in a temperate climate. In the Arctic it goes too fast and in the warmer climate it slows man down so that he can get very little done, so we of the Temperate Zone are the ones to do things. We are driven to expand our conquests of Nature and man and to seek power for ourselves. Thus have the great civilizations grown, and thus have started the great wars. Both of these have flourished in those periods when for a generation or so we have had a cycle of subnormal temperatures. Dr. Mills validates these statements by data gathered from travel, study of foreign peoples, farm animals in all climates, and laboratory experiments.

The author points out that in the warmer climates we run our machine with a hot wet blanket over our radiators. This envelope of moist, hot air cuts down the capacity to eliminate heat, so one needs more of the Vitamin B-complex in order to burn up the foodstuffs more slowly and with

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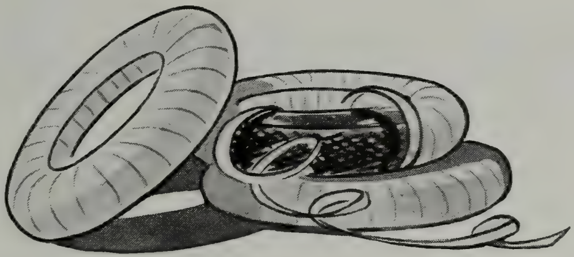

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TO PHYSICIANS WHO SMOKE A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

less accumulation of heat. So while in these warmer climates one needs twice as much of the Vitamin B-complex, one usually gets only about half as much as we in the Temperate Zone are used to. There is, therefore, nothing left for our bodies to do but to lower their blood pressure and metabolic rate and slow down, if necessary to the pace of the alligator. In this way the man of the Tropics becomes a much more efficient machine and can do a bit of work on much less fuel although it will take it a much longer time to get it done.

The big lesson that the book carries for us is the terrific price we pay for our increased activity in this climate. How we burn ourselves up, literally; more especially since we have come to get our energy from foods in which the catylytic Vitamin B-complex has been removed as in white bread, sugar and alcohol. Our restlessness makes it difficult for us to relax, and so we resort to stimulants, tea, coffee, tobacco, alcohol, all of them equally bad; and most of us are so drugged that we can have no appreciation of the buoyancy that goes with a healthy body which has not been drugged, and which is not overworked. All of these things affect much less the man of the Tropics and the Sub-Tropics. People there mature much later and their sexual life is much shorter. Conduct in matters of sex with them, therefore, does not carry with it the social penalties that it does in the Temperate Zone. This makes a paradox. Under our present social code the people with the great reproductive capacity are compelled to exercise the greatest of precautions and inhibitions or else become parents each year, and the intense competition which their boundless energy has created makes this most undesirable. Whereas, the people in warmer climates can experiment with sex until their early twenties with little or no danger of pregnancy. Moral standards, therefore, must be viewed in the light of climate. The increased efficiency of the body in our climate makes for increased growth, so we find our people larger and much more often the victims of cancer. One of the good features, of course, is the great increased resistance we have to infections. If, however, our brother in warmer climates can escape infections, he will also escape the degenerative diseases which are so likely to catch us.

The author goes on to discuss wars, how they are related to climate conditions. He points out that when the Chinese were driven back into the more stimulating climate that in all probability the accruing accumulation of energy will vitalize them to the everlasting sorrow of the Japanese. In these recent days one looks with apprehension upon the danger which our troops are undergoing in their journey through Africa to Central Europe. If it turns out that they have to go

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slow enough to get acclimated to the several climates, that will be well; but if acclimated to Africa they march at once into Northern France and are held there for a period they may repeat the awful experience of the French Colonial in the last war.

There follows then, chapters on the influence of sun spots, on our cycles of above-and-below average temperatures, reports on man-made climates, good advice as to where to go for one's health, and how to arrange one's life in the various climates if one is to live long, it is a book which every physician must read. In addition to adding to his knowledge, it will do his soul good, too. "Humility is said to be good for the soul, and there lies abundant cause for human humbleness. The energetic man of the stimulating regions should appreciate the good fortune which placed him under such favorable circumstances. He has no cause for egotism; instead, he should give credit to the natural forces which made possible his accomplishments, remembering that **Climate Makes The Man.**"

An Old Doctor of the New School, by James C. Wood, M.D., ($3.50, *Caxton Printers, Ltd., Caldwell, Idaho)* is a bit of pioneer history beginning in 1854 in Wood County. The author's experiences embrace parts of the history of several localities. Dr. Wood details the history of homeopathy at its height. What is more interesting to your reviewer are his reflections on education of his day, the little red brick schoolhouse and what it stood for, and the University of Michigan as he knew it. The author had a distinguished career and a rich life. His book is one that every physician will enjoy and it will appeal particularly to every physician in northern Ohio.

Daily Log for Physicians, by Doctor Colwell ($6.00, *Coldwell Publishing Co., Champaign, Ill.)* in its 1943 dress it is the one volume simplified accounting system that works and continues to please physicians year after year. In the busy days ahead many of us will need something that is simple, accurate and easy to keep, and as we found last year, here those of us who never had a business training can acquire much useful information from the instruction pages included in each set.

The Case of the Aged (Geriatrics) by M. W. Thewlis ($7.00, *Fourth Edition, C. V. Mosby Company, St. Louis)* bespeaks the popularity of the book since the third edition has been exhausted within a year. Chemotherapy, fractures, anesthesia, have added much to this edition. The last census shows an increase of 35 per cent of people in our population over 65 years of age as compared with the 1930 census. This book has therefore an important place in the libraries of all physicians.

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